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ABSTRACT

Findings based on extended analyses of cognitive, familial, personality, and social-behavioral data from two previous research investigations are presented. Data for the main study, i.e., the present study, was collected principally by means of interviews. Findings of the principal study include the following: (1) Parental figures living in the household was not related to family ratings of high-low status, except that when the father was present, a greater number of families than expected was rated high in task furtherance; (2) Higher ratings of cognitive style were associated with ratings of high or excellent of house interiors; (3) A trend was found for families rated high in mode of communication to be those in which the mothers had received a greater amount of communication; (4) Those families rated as being stable in eating arrangements had a greater number of index children than expected who achieved high gains on the Binet, and vice-versa; (5) Children who indicated that they did talk to adults tended to receive higher global ratings in the interview than those who did not; (6) Children who indicated that their siblings asked the mother a lot of questions tended to come from families in which the siblings were rated high in cognitive style; and (7) A greater number of families tended to be rated higher in conceptual level when "verbal," rather than "nonverbal" expression on the part of the mother was noted. (Author/CK)

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Final Report for Research Period
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Development of Predictive Indices for Achievement of Children in an Experimental Intervention Program in Harlem: Extended Analyses of Cognitive, Familial, Personality, and Social-Behavioral Data from Two Ongoing Research Investigations

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Chapter I

General Aims and Background of Research;

Brief Summary of Related Research

General Background

The following pages summarize the findings based on extended analyses of cognitive, familial, personality, and social-behavioral data from two previous research investigations, extending from September 1st, 1969 to August 31st, 1970. These were: (a) A Study of Familial, Background, and Cognitive Style Characteristics of Relatively Successful and Unsuccessful Learners (Determined Longitudinally) in a Harlem Enrichment Program (OEO Contract No. B89-4590); and (b), An Exploration of Transfer of Independent Behavior from Enrichment Classrooms in Harlem to a Non-Classroom Behavioral Situation (OEO Contract No. B89-4621A).[1]

One of the major long range objectives in the foregoing series of research investigations was to plan relevant and focused educational and remedial strategies in the light of intensive exploration of several dimensions of children's behavior. These explorations stemmed from a basic consideration: why are some children, regardless of initial levels of general ability, unable (or less able) to profit from, to use, to absorb from, educational programs designed for them as the "target" population? Why are other (equally disadvantaged) children able (or more able) to gain, despite similarities in cultural background and ethnic status to that of the lower gainers? Because we thought we had been looking at possibly important variables in the

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[1] Final reports and Interim Final Reports (1968-1969) for these projects are available on request.

wrong way, or that we had not been teasing out the significant variables, we initiated a series of investigations designed to shed more light on these crucial issues.

We had accumulated, at the end of the period of time noted above, several types of data from many sources, most of it involving especially developed instruments and behavioral criteria. These include, with regard to third and fourth graders in the Institute's special educational classes, data collected over a two-year period. These data and the samples from which they were derived, were examined in the framework of the two investigations noted above, and include material concerned with objective estimates of independence, teachers' ratings of independence, sociometric status, creativity measures, measures of self-concept, objective measures of language behavior, and ratings of communicational and cognitive style. Most importantly, we had constructed, utilized, and cross-validated, a detailed family interview focused on communicational and language systems and administered to all members of the family simultaneously.[2] Not all of these data are available for all of the subjects in the above researches, since two separate studies, with two separate samples, were involved. However, since all of the children studied were Institute children, a vast amount of data concerning them were available. We were in a position, thus, to evaluate their progress in terms of a variety of standardized measures, and to make detailed statements concerning the relationship of this progress to the various experimental data we had accumulated over these past two years in connection with the two research projects

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[2]The available data derived from the two studies, the samples which yielded them, and major findings are described in the next chapter. Appendix A presents both forms of the Interview, and Appendix B, the Revised Classroom Behavior Checklist for Independence.

in which we had been involved.

Thus we have a vast amount of data about disadvantaged children, both in terms of the years of Institute demonstration classes in several Harlem schools as well as more specifically in connection with the foregoing studies. The currently described research has made it possible to examine our immediate and specific data in the light of a large amount of available material concering the achievement levels and accomplishments of these children in the Institute program.

In short, the overall aim of the current research analysis was to examine our data systematically and intensively in order to explore the possibility of creating some models for predicting the future academic status of a disadvantaged child or at least for suggesting that some difficulties at school--in the achievement situation--might occur. If interventive strategies could be based on this more explicit knowledge, we would be in a better position to plan educational programs. Further, such models could be tested in other cultural milieus with other types of socioeconomic and ethnic parameters to test out their generalizability and cross-group validity.

The Two Completed Researches--Overall Purpose and Design

(1) The first of these investigations involved an attempt to construct "profiles" of those whom we called unsuccessful or successful learners (judged through longitudinal criteria) after several years of exposure to the Institute for Developmental Studies' demonstration and enrichment classes in four Harlem public schools in New York City. We were interested in ascertaining the differences between children

who had made progress and those who had made little or no progress. The variables in which we were interested fell into familial, cognitive, and communicational dimensions. The first year's study was based on a group of fourth graders who had been exposed to the Institute's demonstration classes. The second year's study involved a similar sample.

One of our rationales in conducting this study was that an eventual "hard core" target population might well come from the ranks of those children on whom interventive and compensatory programs seem to make little or no impact. It could be that stress on cognitive style and communicational systems rather than on devices and aids, say, to teach reading, may be of tangible future significance. We hoped to be able to offer some generalizations as to the "why" of "gainers" and "nongainers" which go beyond the more conventional test approach but which are individually diagnostic, nevertheless.

Our chief objective, then, was to identify certain extremes in our pupil population--that is, those who profit from compensatory education and those who do not. We were interested in discovering the psychosocial parameters of these two subsamples so that we would be in a better position than at present to make recommendations about intervention and change with regard to the children for whom the usual interventive techniques are not successful.

It was the overall purpose of this investigation to look at family systems, family interactions, and individual children's behavior from a point of view, a framework, that subsumed cognitive and communicational style variables in ways which differed from the framework of more traditional methods. The overall hypothesis of this research

related to the possibility that family "systems" and "milieus"--viewed in terms of how family members communicate with, and send "messages" to one another (their characteristic communicational style)--may provide various kinds of perspectives and "rules for behavior" that become internalized by the school-going members. Further, we hypothesized that these perspectives mediate (enhance or curtail) the children's abilities to listen, attend, conceptualize, sit still, etc.--abilities which are crucial to learning situations, be they formal or informal. In the design of our research, however, we had not ruled out the possibility that other, more "conventional" sociological and psychological variables may also play an important role in determining achievement-status, and indeed, we included such variables in our interview schedule.

To achieve our purposes, in the first year of this research, we developed a family interview for use with families in a group situation, which encouraged all members of the family to participate. This interview afforded one or more raters the opportunity (we used two rater-interviewers) to rate the family system for communicational and cognitive level on scales we developed. We also developed behavioral tasks for small groups of children which permitted the relevant communicational and cognitive behaviors to emerge--behaviors which were rated along the same communicational dimensions noted above.

In the second year of this research, as noted, we worked with a new, but equivalent pupil population in order to replicate and cross-validate the specially developed family interview schedule and cognitive and communicational rating procedures in an attempt to see if the same variables or sets of variables continued to distinguish the high gainers and low gainers. The continuation research, in addition, has

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given us an opportunity to explore several collateral variables thought to be of significance in understanding the differences between those children who have gained and those who have made little progress. In the initial year's work, we had not been able to explore the role of personality and self-concepts in distinguishing our pupil-groups, for example; nor had we introduced available, standardized instruments for assessing various aspects of language ability. We were able to fill these gaps in the second year's work.

(2) In the second of these investigations ("Independence") we attempted to assess the degree to which the Institute's ongoing enrichment program in several Harlem public schools had succeeded in fostering and encouraging independent, autonomous behavior among its pupils. This evaluation had been conducted through the use of behavioral, rather than standardized test criteria, both in the classroom and in a "transfer" situation, to explore whether or not the changes that occur in the classroom did emerge outside of that "programmed" setting.

The first year's work resulted in the development of a reliable, classroom behavior Checklist for observing independent behavior. The findings in connection with the transfer situation suggested that independence does not "carry over," that is, is not a single, unitary trait that manifests itself regardless of the situation in which it is measured.

If we are indeed training for, and reinforcing independent behavior in Institute children, we must be assured that independence <u>should</u> be an educational goal. For the above reason, we continued the research during the second year to determine what associated, correlative behaviors and characteristics accompany independent, pseudoindependent, or

dependent behavior. The specific objectives of the second year's research were: (a) to replicate and cross-validate the Revised Classroom Behavior Checklist with a new but similar sample, hopefully enabling us to provide the professional community with a reliable, cross-validated instrument for the measurement of independent, pseudoindependent, and dependent behavior; (b) to explore the relationship of teachers' ratings of children as to independent, pseudoindependent, and dependent behavior to behavioral Checklist scores based on observations of these same children; (c) to explore the sociometric concomitants of independence, pseudoindependence, and dependence; (d) to explore the relationship of creativity measures and scores to designations of independence, pseudoindependence, and dependence derived from the Checklist, and to develop new methods for assessing the creativity dimensions in this sample; (e) to explore the relationship of self-concept and personality to designations of independence, pseudoindependence, and dependence derived from the Checklist; and (f) to examine a number of additional, subsidiary relationships that we thought could shed light on the behaviors relevant to the area of our investigation. The samples used in each year's work were third-grade children in the Institute's program. The first year's research also utilized third-grade control (non-Institute) children. The foregoing objectives were achieved, it should be noted.

Need for and Objectives of Currently Described Research

Several overall considerations prompted the present research. One is the need for predictive studies of outcome of special educational programs. At the present time, with the exception of those few studies mentioned in the Related Research section which appears later,

there are few data on which the prediction of success of any program can be based. Not only is it difficult, on the basis of information which exists in the literature, to determine the probability of improved performance for groups of children in special programs, but the variables which make for individual successful response are almost totally unknown. A general objective for the current study was to perform additional analyses of data gathered over the past two years to maximize the value to be derived from the funds and effort already expended. In this attempt to utilize data collected in two studies of of two years' duration each, we performed an interrelational analysis of four years of data collected in the same general area on samples drawn from the same population. An additional overall consideration was the possibility of creating models for interventive programs on the basis of the indices of success derived. Additional objectives of the current continuation research included intensive analysis of the family interview. Appendix A presents in detail the specially developed family interview. Preceding reports have stressed the uniqueness of our interview procedures. In its stress on a group procedure and on eliciting cognitive and communicational variables, we have provided an opportunity for ratable behavior along these lines to emerge. Our family interview, in addition, covers a wide array of psychosocial and demographic material.

We are attempting to further refine and review our cross-validated interview technique in order to offer it to interested workers as a valuable family assessment technique. We wished also to intensively examine the relationship of various interview items and content to other interview items and content as well as to other kinds of

available data in connection with these families. We hoped, in addition, to develop some indices which cluster items to each other in meaningful, predictive ways with regard to the high-low status of the index child. In short, another aim of the proposed continuation research was to further refine and examine what we think is a unique, cross-validated instrument of family assessment.

As already noted in the foregoing material, the primary aim of this research would be to combine the efforts of both studies over the past two years in an intensive effort to pull out from the vast amount of available data those variables which are significantly related to achievement status. Our definitions of achievement relate to longitudinal considerations, that is, development from a base line. We have been able to define achievement status in other ways for there is much available Institute information about these children, since they were in the demonstration program over the past several years. We have reviewed possibilities for operationally defining this criterion. And we worked with several <u>different</u> operationally defined criterion measures. The steps involved in assessing the degree of relationship among and between the independent variables and dependent variables were numerous and time-consuming and yet unless these steps were taken, our years of efforts would have been wasted and the overall aim of our projects unfullfilled.

<u>General Design of Analysis</u>

<u>The Family Interview</u>

A. <u>Combined Interview Data, Both Forms vs. Family Ratings and High-Low Status</u>

Because of small sample size within each of the year's high-low

investigations, we were not able to explore all aspects of relevant relationships between various family variables and criterion measures. We attempted, in the current work, to combine both years' samples, working with extremes on various items or various criteria, as well as to work with items whose distributions did not permit statistical exploration in each year's analysis held separately.

Thus, a careful discussion of item distributions, especially for items which could not be run because of distribution problems, or which although run separately for each year, yielded possibilities for significant findings were a larger sample to be explored, resulted in a lengthy list of interview items that were run against all family ratings and high-low status on the Binet. Some examples of those items that were run, with the rationale for their selection are:

(1) Rating of the stability of the family's eating arrangements (Items 15 and 16). By combining the two samples, we were able to run the extremes of this item, very stable eating arrangements versus moderately or very unstable eating arrangements.

(2) Rating of the household interior. We had not been able to run this rating either year due to the limited range in obtained responses. By combining samples, we were able to compare ratings of excellent to ratings of poor household conditions.

(3) Mother's employment (Item 31). This item had been used for analysis for both years of the study; however, it was hoped that significant findings would emerge when both sample were combined.

(4) Do children belong to groups or clubs (Item 6). Analysis with two samples enabled us to compare the extreme responses to this item, children do not belong to any groups or clubs versus all children are

active members of at least one group or club.

B. Combined Interview Data, Both Forms: Intra-Item Comparisons

The current exploration also permitted us to conduct analyses not previously undertaken because of time and because their scope was not within the design of the study. For the present research, we were able to interrelate many of the items from the Interview using a combined sample and thus further explore our sample and interview characteristics. Those items selected for cross-tabulation were chosen from basic demographic data obtained from the families, for example, mother's education, parental figures living in the household, number of permanent household residents, mother's employment, and mother's membership in groups and clubs. These items were compared to several additional items which promised to provide meaningful statistical descriptions of our population.

C. Combined Interview Data, Both Forms: Construction of Indices

Various items offered the potential for being combined with each other in such ways as to shed further light on variables in which we were interested. Thus, item indices were developed to improve prediction of the basic criteria--Binet change scores and ratings of cognitive style, as employed in both high-low samples. Those items which had demonstrated some degree of relationship with these criteria on the basis of one of the forms administered comprised the "domain" of such possible indices.

For each index, an index "score" was derived to reflect the extent to which the particular behavioral pattern or trait was present on the basis of several items. Index scores were a simple total of the scores on each of the items in an index. Each item was scored zero (0) or one (+1) depending on the absence or presence of the behavioral trait

as defined by the cut-off for the particular item. For example, for mother's participation in clubs or groups, a score of (0) was assigned when mother indicated that she was not a member of any club or groups; while a score of (+1) was assigned when she indicated that she was an active member of at least one club (note responses other than these extremes were not scored at all). A family was given an index score only where items in the index could be scored. Indices we developed were:

(1) Mother's Activity Level. Two items defined this index: mother's participation in clubs/groups; and whether mother votes. In both instances, community participation was involved. For both items, a score of (+1) was given to responses which indicated that there was a high degree of community participation, while a score of (0) was given when there was a lower degree of participation. For mother's participation in clubs/groups, the cut-offs were: very active in at least one club or group (scored +1) vs. non-member status (scored 0). For mother's voting behavior, cut-offs were: votes in all or most elections (+1) vs. does not vote in any elections (0). Totals were taken for the two items, this becoming the index score. For analysis purposes, comparison groups consisted of cases with a score of (+2) (very active) vs. cases with a score of (0) (inactive).

(2) Mother's Conceptual Level. Three items defined this index: why mother likes to be asked questions; why mother feels children should have responsibilities; and what are mother's feelings when she has to punish her children. For all of these items, a score of (+1) was assigned to responses which indicated that a conceptual principle was involved. A score of (0) was assigned to the remaining responses where a conceptual

principle was not made explicit. Index score totals were taken across the items, and for analysis purposes, scores of (0) and (1) (lower conceptual level) were compared with scores of (2) and (3) (higher conceptual level).

(3) Mother's Verbal vs. Nonverbal Orientation. Two items defined this index: how do children know when mother is proud; and how do children know when mother is angry. Both items reflected the perceptions of the children. For each of the items, a score of (+1) was assigned to responses indicating meaningful verbal reinforcement. A score of (0) was assigned to those instances where nonverbal reinforcement was given. Totals were taken across the two items, and for analysis purposes, cases with a score of (+2) (mother gave verbal reinforcement consistently) were compared with cases with a score of (0) (mother did not give any verbal reinforcement).

(4) Stability Index. This index was based on three items: rating of the stability of eating arrangements; stability of role assignments; and parental figures living in the home. For stability of eating arrangements, a score of (+1) was assigned when the family had stable eating arrangements, while a score of (0) was assigned when the family had moderately or very unstable eating arrangements. The presence of stable role assignments was also given a score of (+1), while unstable or interchangeable roles in the home were scored zero (0). For presence of parental figures, where both parents were present, a score of (+1) was given; where mother or mother figure only was present the item was scored zero (0). Totals were taken across the three items, and for analysis purposes, the most meaningful comparison groups which emerged were those receiving index scores of (0) or (+1) vs. those receiving a

score of (3).

(5) Verbal Encouragement Index. The two items in this index were: mother's assessment of whether she likes to be asked questions by her children; and children's assessment of whether mother likes to be asked questions. For mother's assessment, a score of (+1) was assigned when mother said she always or usually liked being asked questions; a score of (0) was assigned when mothers said they usually did not, or sometimes did not like their children to ask them questions. For children's assessment, instances in which the index child said the mother liked to be asked questions were assigned a score of (+1); instances in which the index child said the mother did not like to be asked questions were scored (0). Totals were taken across the items, and for analysis purposes those cases scoring (+2) were compared with those scoring (0).

(6) Index of Mother's Knowledge of Children's Activities. For this index, three items were employed: mother's recollection of index child's afterschool activities of the previous day; mother's recollection of siblings' afterschool activities of the previous day; and extent of mother's knowledge of children's friends. For recollection of index child's activities, as well as siblings' activities, a score of (+1) was assigned when mother had a clear recollection, and a score of (0) was assigned where she had vague, little, or no recollection of the activities. For extent of knowledge of friends, when mother knew many, most, or all of her children's friends, a score of (+1) was assigned. When she knew some, few, or none, a score of zero was assigned. Totals were taken across items, and for analysis purposes, the most meaningful comparison groups which emerged were those receiving index scores of (0) or (+1) vs. those receiving scores of (+3).

(7) Consistency of Occupational Aspirations Index. This index actually was composed of two items: mother's occupational aspirations for the index child; and the index child's occupational aspirations. Unlike the other indices, however, this index was precoded from the interview on the basis of the consistency or lack of consistency between the two items. On this basis, then, the index was already constructed on the basis of precoding procedures. An index score of (+1) was assigned when mother and child indicated an occupational aspiration in the same category, for example, professional, clerical, etc. An index score of (0) was assigned when there was a discrepancy between the response of mother and child. All cases in which consistency could not be rated were eliminated for purposes of this analysis. Those cases assigned a score of (+1) were compared with those cases assigned a score of (0).

D. Further Exploration of Form II: Comparison of Interview Items with the Missouri Children's Picture Series and the Illinois Test of Psycholinguistic Abilities.

The current research has allowed us the opportunity for comparison of several items on Form II of the Interview and scores on the MCPS and the ITPA. Those interview items selected for analysis were chosen for their relevance to these personality and language measures. Some examples of items run were: number of permanent household residents; does mother like to be asked questions (children's assessment); do children belong to groups or clubs; and why mother feels children should be responsible for doing things around the house.

Correlational Analysis[3]

Our general purpose in this analysis was to lay the ground work for creating models for predicting the future academic status of the disadvantaged child. In this respect, our overall plan has involved a careful and exhaustive examination of many data based on achievement-related measures, such as ability or intelligence, measures of academic achievement, and other measures whose relationship to achievement is more complex or less understood, such as independence, creativity, personality, sociometric status, and cognitive and communicational style. Chapter 2 describes the samples and specific measures employed in this analysis, including all measures derived from the two years of preceding research as well as those derived from Institute material and the Board of Education of New York City for the same subjects.

The basic model for this analysis is essentially correlational in nature. In this respect, two general types of relationships were of interest to us: concurrent and predictive relationships.

Concurrent relationships refer to those relationships among measures taken or administered at some common point in time. On the basis of this kind of inquiry, information can be ascertained concerning: (a) the relationships among various achievement measures at fixed intervals of time; intercorrelations among these measures' pre-, change, and final periods can be examined in this respect; (b) in addition, the extent to which factors other than achievement measures contribute to achievement performance at a given point in time can be ascertained; it should be interesting to find out whether any relationships exist between

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[3]Chapter 5, which presents findings based on this analysis, describes the procedures employed in great detail.

ability or achievement measures, on the one hand, and measures of personality traits, on the other--for example, do measures of independence and measures of intelligence or academic achievement relate to each other at a fixed point in time, such as the end of third or fourth grade?

The predictive question, on the other hand, is essentially this: what kinds of predictive relationships exist between an earlier measure and a (different) measure taken later in time? The question is essentially one which asks: what kinds of predictors are relevant in understanding the development of achievement behavior as well as achievement-related behavior?

This simple approach, we believe, will help to answer questions such as, does an early measure of intelligence, for example, the Stanford-Binet or Peabody Picture Vocabulary test, predict Metropolitan Reading and/or Arithmetic scores at the end of third, fourth, and fifth grades for our sample? The predictive approach, in this respect, may provide additional data concerning the relationship between intelligence and achievement. Furthermore, this approach may also answer questions concerning the degree to which knowledge of various individual traits helps in defining later achievement. That is, to what extent is it important to know a child's socio-emotional characteristics in making predictive statements regarding achievement later in time? Measures of personality and cognitive style taken, for example, during the third grade, can be related to achievement/ability measures taken at a later point in time, at the end of the fourth and fifth grades.

Both the concurrent and predictive features of the present design, then, seek to explore those relevant dimensions involved in predicting future academic status. It should be noted, however, that the present design can only <u>suggest</u> some significant variables in developing a model in which one can predict how given measures relate at a given point in time, or at a disparate point in time.

Related Research

This report does not attempt to review the vast literature relevant to these investigations, primarily because so much has already been described in our previous reports. The original proposal as well as continuation proposal for the "High-Low" study surveyed the literature on achievement, especially with regard to background, family, and self-concept variables. The original proposal and continuation proposal for the "Independence" study similarly contains material with regard to the measurement of creativity, independence, sociometric status and choice, and the like.

We should note, at the outset, that the literature on achievement is becoming increasingly concerned with SES considerations; studies focusing on disadvantaged groups of children throughout the nation have become more frequent. Grotberg (1969) summarized research (1965-1969) sponsored by the Research and Evaluation Office, Project Head Start, Office of Economic Opportunity. From this review, it is apparent that although the investigators' coverage of research issues is extensive, most of the studies reviewed are of a descriptive nature. That is, few studies in this report, as well as in our survey of the literature, are of a predictive nature--studies which amass concurrent relationships and then employ findings to cross-validate and predict. The current brief summary touches primarily on this facet of the voluminous literature on achievement. (By predictive, we mean that the predictor is measured earlier in time than the criterion. Those studies in which the variables associated with achievement have been cross-validated on a new population are also regarded as predictive.)

It should also be noted that many more of the studies on achieve-

ment employ college and high school students as subjects than elementary school subjects. This is evidenced in Lavin's book (1965) which reviews work done on achievement. The disproportionate number of studies using older subjects is even greater when predictive studies are considered. On the college level, some of the more recent predictive studies include: Baird (1969); Johnson (1969); Reck (1968); and Turner (1969). Fewer predictive studies are carried out on the junior and senior high school levels. Some of these include those reported by Farquhar and Taylor (1966), Karas (1968), Kahn (1969), and Sabers and Feldt (1968).

On the elementary school level, predictive studies in the formal sense are relatively rare. An increasing number of studies are found that are based on evaluating preschool programs for disadvantaged children, for example, Bickley (1968), Blatt and Garfunkel (1967), Capobianco (1967), Goldstein and Chorost (1966), and Seidel, Barkley, and Smith (1967). Another large group of studies on this level is based on attempts to differentiate high and low achievers in terms of various characteristics. Thus, various levels of achievement groups have been found to differ significantly on such variables as self-concept (Lourenso, Greenberg, & Davidson, 1965), self-perception and social relations (Jackson, 1968), mobility (Levine, Wesolowski, & Corbett, 1966), independence and conformity of the same sexed parent (Norman, 1966), family size and economic security of the home (Franks, 1968), father's presence (Cortes & Fleming, 1968) and acceptance of possible story outcomes (Henderson & Long, 1968). Another frequently found study is the correlational type, in which the concurrent relationship of a variable with achievement is determined. For example, recent studies of this type have related achievement to: personality (Hundleby

& Cattell, 1968; Rushton, 1966), visual perception (Gill, Herdtner, & Lough, 1968), visual-motor skills (Chang & Chang, 1967; Henderson, Butler, & Goeffeney, 1968), self-concept (Stilwell, 1966), and parental attitudes (Crandall et al, 1964).

The fourth type of study, and the one most relevant for our purposes, is the predictive study. Most of these studies assess the predictor in Kindergarten and use reading achievement in the first or second grade as the criterion. Self-concept is frequently employed as predictor in Kindergarten, with reading ability as the criterion in the second grade (Dowd, 1969; Lamy, 1965; Wattenberg & Clifford, 1964). A study by Pate (1965) screened children in Kindergarten or first grade who would be possible problems in the second grade. Dudek et al. (1969) administered intellectual, perceptual-motor, and personality tests in Kindergarten. The personality measures correlated nonsignificantly with achievement in grades I and II whereas most of the correlations between the intellectual and perceptual-motor tests with achievement were significant.

Two particularly relevant (for our purposes) predictive studies, in which the subject population was drawn from a group of culturally deprived children, should be noted here. The first was reported by Weaver (1968), who found that the Metropolitan Readiness Test and the Stanford-Binet correlated significantly higher than the Illinois Test of Psycholinguistic Ability or the Peabody Picture Vocabulary Test (these tests were all administered in Kindergarten) with tests of reading achievement (administered in the first grade). Silverman (1969) found that children considered apathetic and withdrawn in nursery school had lower achievement as measured by achievement tests in the second grade;

angry and defiant children, on the other hand, did not have later academic problems, nor were there many significant correlations between background variables and the criterion.

Other successful predictive studies include two which predicted reading achievement in the second grade on the basis of the Frostig Developmental Test of Visual Perception (Frostig et al., 1964; Fullwood, 1969). Behavioral observations and bead-stringing performance in Kindergarten, respectively, successfully predicted fifth-grade achievement (Attwell, Orpet, & Meyers, 1967; Orpet, Attwell, & Meyers, 1966).

Finally, two additional studies should be noted, because they successfully predicted later achievement from a very early age. Werner, Honzik, and Smith (1968) reported a long-term predictive study of achievement at age ten years from various predictors at twenty months. The Cattell IQ was most predictive, yielding an r of .44 with achievement at age ten. Honzik (1967) also reported that he could successfully predict eighteen-year-olds' IQs from family environment at twenty-one months of age.

Overall, it would seem that although there is a sparse literature in this area, there is some promising evidence for successful prediction of later achievement status from earlier variables culled form a wide number of possible areas.

Chapter 2

Available Data for Analysis; Previous Findings

The present chapter describes: the samples from which the data were derived; the measures, instruments, and data available based on these samples; and additional data not yet incorporated into the research. In addition, a summary of previous findings is also presented in this chapter. This information is essential for the understanding of findings based on the current year's work, since this is based almost entirely on continuing in more detail the researches of the previous years.

The subject populations for the two studies over the two-year period of funding are thus described below, followed by an annotated list of data derived from these sources.

It should be noted that the instruments, tasks, measures, and techniques that have been used to accumulate these data have either been "custom-made" specifically for our research purposes or adapted and modified for our own particular sample and needs in the light of our research goals. Needless to say, <u>all</u> such methods have, through these years, involved extensive pilot-testing, reliability explorations, and pre-experimental exploration--some of course, more than others. <u>All</u> measures for these researches (1968-1970) for the two studies have known reliability information. These reliability data are reported in detailed form in the text and in tabular form in the Final Reports for this period.

Additional data available for these subjects (but not collected in conjunction with the funded researches)--because they were pupils in the Institute's program--are also listed in this chapter, and have

been examined in connection with the goals of the currently reported investigation.

For convenience and economy, the projects under consideration will be designated as "High-Low" for: A Study of Familial, Background, and Cognitive Style Characteristics of Relatively Successful Learners (Determined Longitudinally) in a Harlem Enrichment Program; and "Independence" for: An Exploration of Transfer of Independent Behavior from Enrichment Classrooms in Harlem to a Non-Classroom Behavioral Situation. The data-sources will also be identified by their appropriate research years.

Samples[4]

(A) 1968-1969 High-Low--See Table 1. From four Harlem Public Schools (68, 79, 90, and 175), 36 fourth-grade subjects comprising all possible children who had been in the Institute's demonstration classes from prekindergarten (1963) or Kindergarten (1964) were designated as high or low gainers on the basis of two criteria: amount of increase in Stanford-Binet mental age scores (Spring 1965--Spring 1968); and amount of improvement in Gates-MacGinitie Vocabulary Scores (Spring 1965 --Spring 1968). The procedures by which high or low status was determined, as well as the findings demonstrating that both in terms of initial mental ages as well as chronological ages, high gainers do not differ significantly from low gainers as defined by their discrepancy

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[4] Samples from which our data have been obtained are subject to a certain amount of fluctuation or variation in terms of Ns due to absences and moves out of the school district. These are minimal variations, however. For example, from Table 2 (High-Low, 1968-1969), it can be seen that one family from Public School 68 was not available for the family interview, and three children from the same school not available for the behavioral sessions from the original P.S. 68 pool of High-Low subjects (Sample A).

scores are presented in pp. 5-7 and Tables 3-6 in the Interim Final Report (1968-1969) of this study.

(A_1) 1968-1969 High-Low--See Table 2. The children in Sample A were eventually seen in small group behavioral sessions (randomly assigned in terms of high and low status). Of the original 36 Ss, 30 were observed and "blindly" rated in these sessions, since six children had moved out of the school district before the sessions were run.

(A_2) 1968-1969 High-Low--See Table 2. The families of the 36 children were each seen in an intensive family (group) interview (family N, 36; total seen in interviews, 177, of which 164 were family members, the rest being visitors or "extended" kin).

(B) 1968-1969 Independence--See Tables 3, 4, and 5. A total of 40 third-grade Institute children was observed in the classrooms in Public Schools 90 and 175 with the aid of a specially developed classroom Behavior Checklist. Table 4 presents mean ages for these subjects classified according to years of exposure to the enrichment program for both schools combined.

These children were also observed and rated in especially constructed experimental small group behavioral transfer sessions. The actual experimental sample was reduced by one because a female S from Public School 90 was not available when the transfer sessions were run. (Control [non-Institute] Ss were drawn from the third-grade classes of Public Schools 90 and 175 and came from the same SES, school, and community backgrounds as the experimental Ss. These additional 39 Ss, although constituting an important part of last year's research, will not be regarded as providing data for current purposes, since they are not Institute children with Institute data available for them.)

(C_1) 1969-1970 High-Low--See Table 6. These children (N, 31) were selected from the fourth grades of Public Schools 68, 79, 90, and 175 and comprise all possible children who had been in the Institute's demonstration classes from prekindergarten (1964) or Kindergarten (1965). They have been designated as high or low gainers on the basis of two criteria: Stanford-Binet mental age discrepancy scores (1966--1969) and Peabody Picture Vocabulary Test discrepancy scores. In terms of initial mental ages as well as chronological ages, high gainers do not differ significantly from low gainers as defined by the foregoing discrepancy scores, it should be noted.

(C_2) The families of the children in Sample C_1 were interviewed (and rated) with the revised group family interview schedule developed in 1968-1969. There were 30 families in the interview sample because one family would not consent to an interview.

(D) 1969-1970 Independence--See Tables 7 and 8. A total of 40 third-grade Institute children comprises the basic sample for this study. These Ss represent the basic subject pool for exploration of the correlates of independence, dependence, and pseudoindependence.

Data Available

(1) Ratings of cognitive and communicational style of Sample A_1 (High-Low, 1968-1969): Data were derived from small group behavioral sessions which consisted of observed behavioral tasks especially developed to elicit ratable behavior relevant to language and communicational style. Two raters rated these subjects as to overall cognitive and communicational level. See Interim Final Report for a complete description of these tasks and ratings, as well as reliability information in regard to these ratings. Good reliability for rating

the relevant behavior in these small group sessions was found.

(2) Extensive family interview data from Sample A_2 (High-Low, 1968-1969): It will be recalled that an intensive family interview was piloted, developed, and then conducted with the families of the index children in Sample A_1. This interview required all or as many possible members of the family to be present, and was designed to elicit interactional, group, language, and communicational data. The interview schedule as used in 1968-1969 is presented in Appendix A of the current report, together with "marginal" findings. In general, its scope covers demographic, interactive, and cognitive and communicational data.

(3) Cognitive and communicational ratings of family members' interview (Sample A_2, High-Low, 1968-1969: Ten rating scales (see Interim Final Report) were developed to tap several aspects of cognitive and communicational style of family members as observed in the home interview. Ratings were made independently by each of two observer-interviewers immediately following the home interview. One of these ratings, the global rating, was broken down into four parts to allow for possible differential ratings of the family, index child, siblings, and mother. Detailed analyses of these ratings resulted in the elimination of three scales for future use, since the defined and expected behavior was actually not observable for a substantial proportion of the interviews. Extensive reliability tests on the remaining scales indicate a significantly high amount of agreement between the two interviewers rating the sample families.

(4) Cross-validation of the family interview--Sample C_2 (High-Low, 1969-1970): Based upon extensive analyses of the earlier inter-

view, a revised interview schedule was developed which provided maximal item discrimination within the context areas of the interview. Interview procedures established in the earlier study were maintained for this replication, resulting in a cross-validation of findings with a new, but similar sample. This revised interview, with "marginal" findings is presented in Appendix A of the current report.

(5) Cognitive and communicational ratings of family members' interview (Sample C_2, High-Low, 1969-1970): The reliable, remaining scales employed in 1968-1969 family interviews were cross-validated with a new sample of family members in connection with the revised family interview.

(6) Quantitative scores from classroom Checklist for independent behavior from Sample B (Independence, 1968-1969): The Behavior Checklist that was developed was designed to elicit objective data for the Ss observed as to three variables (not necessarily on a continuum with each other): independence, pseudoindependence, and dependence. After extensive pilot-testing, the checklist was reduced to nine items per behavioral category, and utilized by two observers over a period of time. Reliability analyses were made of inter-rater agreement, and item-total correlations were also computed within each behavioral category. Only those items which met the criteria of sufficiently high inter-rater agreement and item-total correlations were included in the final pool of items from which Z-scores for each S for each item in the Checklist were calculated. A rule-of-thumb for designating Ss as independent, pseudoindependent, or dependent on the basis of their rank on these three mean Z-scores was devised. Z-scores for each S for each behavioral category constitute the relevant data here.

The foregoing steps are described in detail in the Interim Final Report for this study; reliability and item-total correlations were quite high, it should be noted. The Checklist is presented in Appendix B.

(7) Global ratings of independence, dependence, and pseudo-independence based on Checklist summary data--Sample B (Independence, 1968-1969): This measure consisted of an overall rating, made by two independent raters for each subject on the basis of two summary checklist sheets for each child (one for each independent classroom observer). The summary checklist sheets contained total frequencies for each scale point for each item on the Behavior Checklist. On the basis of these summary sheets, the subjects were then rated as independent, dependent, or pseudoindependent (highly or moderately for each). The rater's level of confidence in making these ratings was also included. Reliability studies indicated excellent agreement between the independent raters for global ratings.

(8) Behavioral transfer session ratings--Sample B (Independence, 1968-1969): On the basis of extensive pilot-testing, several behavioral tasks, designed to elicit behaviors relevant to the variables of independence, dependence, and pseudoindependence, were developed for group situations outside of the classroom. These tasks were devised for peer groups of four to six children. Both structured as well as unstructured task situations were employed; the former permitted peer influence in a structured group setting, and the latter allowed for more individual, spontaneous behavior to emerge. The principal measure resulting from these transfer sessions was a rating, made independently by two observers, which required a summary rating of each subject's behavior as independent, dependent, or pseudoindependent (highly or moderately for each). Reliability studies indicated a substantial

amount of inter-rater agreement in ratings of subjects in the transfer session.

(9) Quantitative scores from cross-validated Revised Checklist for Independent Behavior from Sample D (Independence, 1969-1970): On the basis of the 1968-1969 study, a Revised Checklist, consisting of 6 items in the independence scale, 4 items in the dependence scale, and 9 items in the pseudoindependence scale, was cross-validated with Sample D, a sample similar to Sample B. These items met the criteria of sufficiently high inter-rater reliability and high item-total correlations, warranting their continued inclusion in the checklist. The format and procedure established in the 1968-1969 study (see Interim Final Report) were followed in this cross-validational step, including the use of two independent observers. Data analysis and reliability estimates were handled in a manner similar to that described above. Each S was eventually assigned a Z-score for each item of the behavioral categories. His rank of mean Z-scores within each category in terms of the rest of the sample was determined and on this basis he was categorized as independent, pseudoindependent, or dependent.

(10) Global ratings of independence, dependence, and pseudoindependence based on cross-validated Revised Checklist summary data--Sample D (Independence, 1969-1970): Two independent raters globally rated the Ss in Sample D on the basis of summary sheets of the cross-validated Revised Behavior Checklist in accordance with procedures developed in 1968-1969 for Sample B.

(11) Missouri Children's Picture Series (MCPS)--Sample C_1 (High-Low, 1969-1970): The Missouri Children's Picture Series (Sines, Pauker, & Sines, 1966), which consists of 238 simple line drawings,

each on a 3" x 5" card, was an objective nonverbal test of personality. Administered individually, the MCPS requires the subject to place each picture into one of two piles: Looks-like-fun or does-not-look-like-fun. Standard administration and scoring procedures for all of the subscales were followed. These procedures permitted the investigators to score for each subscale, as well as develop personality profiles. Scores on this instrument were transformed to standardized T-scores already established for the MCPS.

(12) The Illinois Test of Psycholinguistic Abilities (ITPA)--Sample C_1 (High-Low, 1969-1970): The revised ITPA (Kirk, McCarthy, & Kirk, 1968) was used to investigate the three dimensions of cognitive language ability postulated by the ITPA model--channels of communication, psycholinguistic processes, and levels of organization. Ten of the total twelve subtests were administered, with omission of the two supplementary scales. Relevant data include separate subscale scores and composite scores. Inter-scale correlations, as well as subscale-total relationships, were studied.

(13) Sociometric data--Sample D (Independence, 1969-1970)--two time samples: The sociometric measures developed by our staff consisted of two parts, both given individually. (Pilot-testing had demonstrated the inadequacy of the originally planned group tests.) In part (a) (ratings), each S was asked whether or not he likes each of the children in his class. In the choice test (b), S was asked to select two children for each of the following questions: (a) which two children would you like to sit next to; (b) which two children would you not want to sit next to; (c) which two children would you like to play with during recess; (d) which two children

would you not want to play with during recess; (e) name the two children you like best, like very very much; and (f), name the two children you don't like at all--they really bug you.

To make it possible for us to explore the reliability of the two sociometric measures, each part was given twice, in the following order: ratings; choice test; ratings; choice test. The sociometric measures were administered at the beginning of the school year (Fall, 1969) and again near the end of the school year (Spring, 1970), in accordance with the overall research design of the study.

(14) Teachers' ratings for Independence--Sample D (Independence, 1969-1970)--two time samples: This measure consisted of teacher ratings of each child (in each teacher's classroom). These scales rated a child's behavior (globally) as independent, dependent, or pseudoindependent. Provisions for considering the intensity of observed behavior (high or moderate) as well as the teacher's confidence in making the rating were included in the rating scales. This measure was administered twice during the 1969-1970 year; once in the Fall, 1969, and again in the Spring, 1970.

(15) Creativity battery--Sample D (Independence, 1969-1970): The creativity battery consists of four individually given tests, two figural and two verbal taken from the Torrance Tests of Creative Thinking (see Torrance, 1966), Form A. The two figural tests are the Picture Completion test which requires the subject to draw pictures from 10 given incomplete sketches and the Lines task in which S is requested to draw different pictures on the basis of 18 pairs of parallel lines. The two verbal tests are the Product Improvement test requiring S to state the ways in which a stuffed toy monkey could be changed so that it would be more fun to play with and the Unusual

Uses test in which S designates unusual uses for boxes. Pilot-testing with our population led us to modify slightly the four tests we used in terms of time limits, order of the tests, insructions, and, in one of the subtests, number of stimuli presented to S. Each of the tests yields either three or four scores: elaboration (amount of detail); fluency (number completed); originality (frequency of response); and flexibility (number of different categories in which the responses fall).

(16) Missouri Children's Picture Series (MCPS)--Sample D (Independence, 1969-1970): A brief description of the MCPS, an objective personality instrument, was presented above (item 11), since it was used in connection with the 1969-1970 High-Low study, Sample C_1. As reported there, standard administration and scoring procedures for the instrument were followed, so that subscale scores could be obtained (using available norms) which were then transformed to standardized T-scores.

Additional Data[5]

In addition to the foregoing measures, there are data based on several measures available for Samples A, B, C, and D. These

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[5] It should be noted that the measures which are included in the current exploration were those which maximized sample size for the particular point in time of testing administration. Thus, the measures taken, for example, at the end of Kindergarten, or at the end of the third, fourth, and fifth grades, involved relatively large Ns . Measures excluded from consideration because they involved too few Ss in the sample were: Stanford-Binet, at the end of the second and fifth grades; PPVT, at the end of the fifth grade; Gates, at the end of the third grade; CMMS, at the end of the fifth grade; and the Lorge-Thorndike, at the end of Kindergarten. Additional available data were not used because of apriori decisions to regard the critical time periods (from our point of view) as either at the end of Kindergarten, or (for a later criterion), at the end of third, fourth, and fifth grades. Eliminated from consideration, thus, were the S-B, PPVT, and CMMS for prekindergarten and first grades.

are concerned essentially with achievement-related behavior, and have been obtained over a period of years by the formal testing program administered to waves of pupils in Institute demonstration classes.

(17) The Stanford-Binet Intelligence Scale (S-B): This instrument (Form L-M, 1960) purportedly provides a measure of general intellectual ability, and has been administered to Samples A, B, C, and D. Evidence concerning the validity and reliability of the 1960 version is reported in Terman and Merrill (1960). IQ scores obtained at the end of Kindergarten and third grade, provide a basic criterion measure for all of the foregoing subjects.

(18) The Peabody Picture Vocabulary Test (PPVT): This instrument, which is individually administered, presumably measures receptive vocabulary. S is asked to point to one of four pictures that represents the objects or activities named. Evidence demonstrating the reliability and validity of this instrument is reported in the literature by Dunn (1959) and Piers (1965). Peabody IQ scores, obtained at the end of Kindergarten and third grade, are available for Samples A, B, C, and D.

(19) The Lorge-Thorndike Intelligence Tests (Level 1, non-verbal battery): The Lorge-Thorndike (L-T) is a group administered test designed to measure abstract intelligence through non-verbal items (pictures of familiar objects or simple geometrical figures). Information pertaining to standardization as well as reliability and validity of the instrument is available in Freeman (1959). Data for this instrument are available for Samples A, B, C, and D at the end of the second grade.

(20) The Wechsler Intelligence Scale for Children (WISC): This instrument yields numerical scores--IQs--based on verbal, performance, and total scale performance. Evidence concerning the properties of this instrument is widely reported (see, for example, Patterson, 1959, & Burstein, 1965). This measure was administered to Sample A only at the end of the third grade.

(21) The Columbia Mental Maturity Scale (1954 edition): Scores for this scale (CMMS) are available for Samples A, B, C, and D. This instrument provides an assessment of intelligence through a process of discrimination in which the S responds by selecting the picture in a series which is different from, or unrelated to, the others presented. Technical data concerning the reliability and validity of this instrument are presented by Newland (1965). Data for this test are available for the end of Kindergarten and the end of third grade.

(22) Reading Prognosis Test: The Institute's Reading Prognosis Test was designed to tap skills that are involved in the reading process and was devised to predict success in reading. It consists of seven subtests grouped in three areas: Beginning Reading; Perceptual Discrimination; and Language. Validation studies are described in Weiner and Feldmann (1963). Data available are for Samples A, B, C, and D at the end of Kindergarten.

(23) Metropolitan Achievement Reading Test: The Metropolitan Achievement Tests (MAT) are given to all elementary school children in the second grades and above in the New York City school system. The test is given in the classroom by the teacher or grade supervisor. It is usually administered in the Spring of each year. The Reading Subtest consists of two parts: Word Knowledge and Reading. Word Knowledge is essentially a vocabulary measure, and Reading is essen-

tially a comprehension measure. Robinson (1965) has provided psychometric data pertaining to this instrument. Raw scores are converted to grade equivalent scores for this instrument.

(23A) Word Knowledge scores were employed for the end of the third and fourth grades for Samples A, B, C, and D. Word Knowledge scores at the end of fifth grade were available for Samples A, B, and C only.

(23B) Reading scores were employed for the end of the third and fourth grades for Samples A, B, C, and D. Reading scores for the end of the fifth grade for Samples A, B, and C only were available and were employed in the current analysis.

(24) Metropolitan Achievement Arithmetic Tests: For these tests there are two basic subtests: Concepts and Problems; and Computations. Anderhalter (1965) provided technical information concerning this subtest. Again, raw scores are converted to grade equivalent scores.

(24A) Concepts and Problems scores were utilized for Samples A, B, C, and D for the end of the third grade.

(24B) Computations scores for the end of third grade for Samples A, B, C, and D were employed.

(25) The Iowa Tests of Basic Skills: This battery of tests focuses on the evaluation of the generalized intellectual skills and abilities involved in vocabulary, reading comprehension, and language and arithmetic ability and not on content per se. Three of the basic five test areas of the test have been employed at the Institute--Language, Work-Study Skills, and Arithmetic. Herrick (1959) presents detailed technical coverage of each of these areas.

The Language Skills tests cover four areas of spelling, capitalization, punctuation, and usage. The basic type of item employed is the "find the error" question. The section on Work-Study Skills is unique in that it attempts to measure a skill not formally taught in elementary schools. These tests were designed to evaluate ability in using graphic materials, reference materials, tables, and maps. Finally, the Arithmetic tests are divided into two parts: concepts and problem solving. The test was administered to Samples A, B, C, and D at the end of the fourth grade.

Brief Summary of Previous Findings

Current findings have little significance outside of the context of the previous findings of the studies for which further exploration of relevant data have been funded. The following sections attempt such a presentation.

Independence:

First year's work. A basic overall expectation was that we could develop a reliable, usable Classroom Behavior Checklist. This expectation has been met. Inter-rater reliability coefficients were utilized to eliminate items of low reliability; in addition, item-total correlations for checklist items within each category were further examined to eliminate additional items. The resulting Checklist thus contains only those items which met the criteria of sufficiently high inter-rater reliability and high item-total correlation coefficients to warrant their continued inclusion in the final form of the Checklist. Objective Z-scores based on Checklist findings as well as a systematic "rule" for classifying subjects based on their Z-score designations were developed. Global raters, who were

not in the classroom, independently rated Checklist material for independence, dependence, and pseudoindependence. There was an extremely high degree of reliability between the raters. It was also found that there was a positive association, established with some degree of confidence, between global ratings and Z-score designations of the Ss.

Ratings of observers in the independent "transfer" behavioral situation were less reliable, it should be noted, than those based on summary Checklist data. And overall findings indicated that the designations based on classroom behavior were not associated with designations derived from the transfer situation. Data analyses further indicated that there was no association between "filler" status and the global Checklist ratings, Z-score classifications, and behavioral session ratings. And there was no apparent association between experimental and control subjects and the ratings assigned to them based on behavior in the behavioral sessions.

These findings indicate lack of support for most of the hypotheses and expectations of the first year's work with the exception of those pertaining to the Checklist and its development and use. Indeed, it does seem that the "transfer" session was an inadequate method for measuring "transfer" effects. It may be that the significant and crucial variables are the striking differences between the classroom situation and the behavioral situation. It should be noted here that the literature presents some evidence that dependence may not be a unitary trait, but rather a rubric for different and varying behaviors. Furthermore, some studies indicate that situational aspects in which the dependence is measured are of extreme importance.

In any event, we were forced to conclude that independence does not "carry over" into other situations--at least in this age group--regardless of that situation.

Second year's work.

(1) The Revised Classroom Behavior Checklist was cross-validated with a new sample, yielding classifications of the children again based on Z-score designations. Global raters' ratings based on Checklist summary data again were found to be reliable in terms of rater agreement.

(2) Creativity measures were adapted from an existing series of tests for our purposes (Torrance, 1966) and administered to the new sample on an individual basis. Reliability explorations indicated good scorer agreement.

(3) Sociometric measures, administered both in the Fall and the Spring, were developed, pilot-tested, and formally given to the new sample of Ss on an individual basis. To index the consistency of the like-dislike scale for each testing period (Fall and Spring), there were test-retest administrations. Using chi square methods which yielded phi coefficients, we found that the association between choices on the first and second administrations of this sociometric rating test was high, significant, and positive for each testing period. Additional analyses disclosed that there was a very high degree of association between sex of rater and sex of child chosen, it should be noted.

Consistency of sociometric choice was also explored for Fall and Spring test administrations separately. Not all items showed high consistency in each of the testing periods from test to retest. It

is interesting to note that the questions in this situation which involved positive choices (e.g., Which two children would you like to sit next to?) were more stable from test to retest than those items which involved negative choices (e.g., Which two children would you not want to sit next to?) Here again, it was found that there was a high degree of association between sex of respondent and popularity. Some consistency was found for several of the items for both (across) Fall and Spring testing periods, it should be noted. Sociometric choice items and sociometric rating scores were significantly and highly correlated with each other for the Fall and Spring testing periods.

Our discussion of findings stressed the special difficulties in this population in developing a group-administered sociometric technique. A review of the development of our methods would describe the host of problems in administering, scoring, and testee-misunderstanding that resulted even after the group method was discarded in favor of the individual method. We feel that a significant aspect of our work lies in the development of our methods, and are especially eager to call the attention of our readers to the techniques we developed for measuring this particular dimension.

(4) Missouri Children's Picture Series. It should be noted that research with the MCPS has been extensive; reliability as well as validity data have been reported (Sines, et al., 1967, 1968, and 1969). Items which have been employed in all of the subscales of the MCPS show significant and positive discrimination among known test samples. These subscales have also been investigated in terms of internal consistency of items, ten-day retest reliability, and

six-month retest reliability. We should note here that because sex of the Ss enters into the scoring procedures, subscale scores were held separately for each sex for purposes of current data analysis.

(5) Teachers' Ratings. Teachers independently rated each of the subjects in the classroom along the same dimensions of independence, dependence, and pseudoindependence both in the Fall and the Spring. To assess the stability of teachers' ratings, a contingency coefficient was computed relating Fall and Spring designations for each S. This coefficient is highly significant. When separate analyses for schools were conducted, it was found that teachers shifted more frequently in one of the Public Schools than in the other.

Main Findings--Second Year

(1) Z-score and global Checklist designations were highly related to each other.

(2) Z-score designations tended to be positively associated with teachers' ratings in both the Fall and the Spring; however, global Checklist ratings were not. Interestingly, teachers' Spring ratings showed a greater relationship to objective measures than did the Fall ratings--presumably because teachers got to know their pupils better as the academic year progressed.

(3) Z-score classifications and sociometric status as determined by the rating methods as well as the choice methods were not associated either in the Fall or the Spring. However, trends involving global ratings indicated that our expectations were in part confirmed concerning the more popular sociometric status of independent children in the Spring, rather than the Fall.

(4) Our expectations concerning the positive relationship of

independence and various creativity scores in this group of children were not met.

(5) Significant relationships were not found between Z-score and global ratings and any of the MCPS scales. Our expectations, therefore, concerning the positive relationship of independence designations and those scales prejudged to represent "better" or "healthier" self-concepts were not met.

(6) Teachers' ratings tended to relate quite well to sociometric nominations, although the specific hypotheses concerning the greater number of significant relationships regarding Spring teachers' ratings did not hold up for both sociometric measures. In general, the more popular children tended to be rated by their teachers as more independent.

(7) Teachers' ratings for independence in the Fall and in the Spring were not associated with creativity scores. However, both in the Fall and in the Spring, teachers' ratings of independence for male children tended to be positively and reliably related to scores on the Figural Originality subtest in the expected direction.

(8) Teachers' ratings for independence were not related to any of the Missouri Childrens' Picture Series subscale scores.

(9) Length of exposure to the Institute's special enrichment program is not associated with status (independence, pseudoindependence, or dependence) as determined through four essential sources: Z-score designations based on the Checklist observations; "global" ratings of Checklist material; and teachers' ratings in the Fall and the Spring.

(10) Fall ratings of popularity (like) tended to be for the more aggressive children as determined by the MCPS test; and Spring ratings

of popularity (like) were significantly related to higher conformity on the MCPS test.

(11) Sociometric choice items bore no significant relationships, both in the Fall and in the Spring, to MCPS scores.

(12) No significant relationships emerged in the analyses of data regarding sociometric ratings (like-dislike) in both the Fall and in the Spring and creativity scores. But there was a tendency for sociometric ratings and creativity to be negatively related in the Spring.

(13) Creativity scores and sociometric choice (like-dislike) in the Fall and Spring were not significantly related for most comparisons. Exceptions were: Ss who were more popular (on one of the two measures) scored significantly higher on the Figural Elaboration score than those children who were less popular in the Fall sociometric testing period. In the Spring testing period, however, two significant negative relationships emerged, a sharp reversal from the foregoing: for two of the two sociometric measures, more popular children were significantly lower on the Figural Flexibility scale than those children who were less popular.

(14) Findings comparing creativity scores and MCPS scores were generally non-significant, with the following exceptions: children low in MCPS Agressivity tended to score higher on the Flexibility measure than children high in Agressivity. Children high on MCPS Hyperactivity scored significantly higher on the Verbal Originality measure than those who scored low on MCPS Hyperactivity. Further, children high in Hyperactivity also tended to score higher in Figural Elaboration.

"High-Low":

During the first year, we developed and worked with a complex family interview technique which was cross-validated with a similar population the second year. We developed and tested reliable rating scales for use in both years' interviews--such scales were designed to assess the behaviors which our interview method was designed to elicit. In the first year, we developed behavioral sessions also designed to allow relevant behaviors to emerge, which permitted further independent reliable ratings of the index children. In the second year, we tested the new index population with the MCPS and the ITPA--additional steps designed to find out more about the variables associated with the "high" or "low" achievement status of our subjects.

Reliability of the ratings in the cognitive style sessions was high, but our expectations that there would be a positive correlation between "high" and "low" status as defined by the two longitudinal criteria and cognitive style ratings based on behavior in the cognitive style sessions were not borne out.

We should also not that some of our major objectives for our investigation have been achieved. Thus, one of our objectives was to offer the professional community some techniques for assessment and prediction that are highly appropriate for disadvantaged, urban children, specifically: an instrument of family assessment; and a set of rating scales for language and communicational style. Further, we were most anxious to explore, and to offer normative evidence for, techniques or a technique for measuring self-concept, appropriate for the current population. We think we have succeeded in doing so with the regard to the MCPS.

Main Findings--Both Years

(1) Our basic hypotheses with regard to the relationship of ratings of various language, cognitive, and communicational processes based on the family's behavior during the interview to high-low status or to very high or very low status as defined by change scores for the Binet and Gates-McGinities measures were not borne out for the Year 1 study. In the second year's study, again there were no significant findings based on the change criteria (for Binet and PPVT high-low status). However, there were two rather strong trends (both $p < .10 > .05$): ratings based on the family's mode of communication bear a strong and positive relationship to high-low Binet change status as defined by the upper and lower 40th percentiles on the Binet discrepancy score distribution; and the global ratings of the cognitive style of the siblings in the interview also bear a strong and positive relationship to the PPVT extreme (very high--very low) criterion, defined by the upper and lower 30th percentiles of the PPVT change scores distribution.

It is thus seen that although our expectations were not confirmed, that is, ratings based on family behavior were not significantly associated with high-low criteria of change for index children, some promising suggestions were present that our basic hypotheses might be valid. The ratings were sufficiently reliable as were other variables in the study to permit continued exploration of factors associated with the status of the index children. The next sections summarize the significant findings based on such exploration.

(2) Public School attended was significantly associated with Gates-McGinitie change scores (high-low status), a finding which may

reflect school policy or the particular set of teachers and/or curriculum elements within a particular school at a particular point in time. This finding was not substantiated for Form II, in that there was only a trend (for a different school) to produce children with greater gains on the PPVT. Apparently, each year, different schools may obtain preeminence in terms of specific and changing criteria. The particular set of variables associated with such differences has not yet been determined, but is sufficiently interesting to merit further exploration.

(3) Age the mother left the South also turned out to be significantly related to one of the criteria in Form I, but in a direction not immediately explainable. Mothers staying longer in the South bore index children higher on initial Binet scores. Since in Year I the last grade mother completed was significanly and positively related to global ratings of siblings and since there was a trend in the same direction for last grade also to be related to global family ratings, it is possible that mothers who stayed longer in the South were able to complete more education, perhaps thus producing children with higher scores. As a matter of fact, although significant findings were not obtained in this regard, for both years, a strong trend prevailed for mothers who remined longer in the South to achieve more schooling.

In Form II, age the mother left the South is not related to any of the criterion measures. However, certain trends appeared for the last grade mother completed, but one of these is in an unexpected direction. Last grade mother completed was positively related to ITPA composite score (trend) but inversely related to global rating of index child (trend) in that mothers with less schooling had index children

rated higher in cognitive style. Obviously, mother's education and age she left the South bear complex relationships to the criterion measures.

(4) The mother's response to being asked questions and the children's assessment of whether the mother likes to be asked questions yielded several interesting and significant findings for Form I. The mother's affirmative response to whether she likes to be asked questions was significantly and positively assiciated with global ratings of the index child in the interview and high-low Gates status; a trend in the same direction was found for the mothers who liked being asked questions to come from families with higher global ratings. Similarly, children's affirmative response to this question concerning the mother was positively and significantly related to gains the index child made on the Gates. There is also a trend for index children who receive higher ratings to come from families in which the children say the mother likes being asked questions.

(5) On the other hand, a seemingly contradictory trend was found: when the children indicated it bothered their mother if they talked while she is working around the house, their mothers tended to receive higher global ratings. Such mothers may well be more differentiated and goal-oriented, it is suggested, than mothers who "flexibly" allow their children to interrupt them as they work.

Interestingly, none of the foregoing comparisons yielded even trends when the corresponding Form II data were analyzed.

(6) Several additional trends (some of them contradictory or unexpected) emerged, suggesting that chance factors (and/or unreliability of ratings) may well have been at work. For example, compari-

sons involving the crowdedness index yielded the following trends ($p < .10 > .05$): less crowded housing conditions were associated with higher ratings of the index child in the interview but with lower ratings of the index child in the behavioral sessions (for one rater only). Another trend ($p < .10 > .05$) in an unexpected direction suggested that more frequent school absences of the index child were associated with greater gains on the Binet.

When Form II results were examined many more significant findings emerged than was the case for Form I. This may have resulted from comparisons involving the ITPA and the MCPS, which were not employed in Year 1.

(7) MCPS Conformity in this population seems to produce some interesting relationships, possibly relevant only to the present sample--a statement easily explored with other populations. There was, for example, a significant positive relationship between MCPS Conformity and the global rating of cognitive style of the index child (in the interview situation). Further, a trend ($p < .10 > .05$) in the same direction was found for children scoring higher in MCPS Conformity to come from families rated higher in mode of communication in the interview setting.

(8) MCPS Aggressivity was found to bear a significant negative relationship to the global rating of the index child in the interview. That children higher in global ratings in the interview were more conforming (see above) and less aggressive (at least in terms of MCPS scores) is a completely consistent finding; but again we must suggest the possibility that these relationships may be unique to the current population--an easily tested assumption.

(9) ITPA composite score showed a significant, positive rela-

tionship to High-Low Binet status (gains). Further, a trend ($p < .10 > .05$) was found in that index children with higher ITPA scores tended to come from families in which the siblings were rated higher in cognitive style in the interview. An additional significant finding once more falls in the expected direction: index children who read books other than school books score higher on the ITPA than the other children. Finally, a trend already discussed ($p < .10 > .05$) is in the same direction: the last grade mother completed and the ITPA composite score of the index child were positively associated.

It would thus seem that the ITPA measure reliably reflects the kinds of verbal and conceptual variables about which some of our hypotheses revolve.

(10) Sex of the index child bore an unexpected significant relationship to one of the criterion measures in that males scored higher than females on initial PPVT scores--a finding that may reflect important (but unaccounted for) sample differences early in the program.

(11) Number of persons present at the interview bore an interesting inverse relationship to some of the ratings made at the interview: a significant finding was that fewer numbers of persons at the interview were associated with higher global ratings of the family. A trend ($p < .10 > .05$) in the same direction was found for higher global ratings of the index child in the interview and fewer numbers of persons present at the interview to be associated. Since number of persons present at the interview and number of permanent household residents were significantly and positively related, we have a direct indication that with increases of size of family there are likely to be decreases of level of rating in terms of communicational and cognitive processes. Before

any conclusion can be drawn from such findings--for example, that smallness of family tends to be associated with higher cognitive levels--the sheer physical fact of larger groups generating higher noise levels and more confused communication processes simply because of numbers of component parts qua parts rather than because of more complex psychological concomitants, should be considered. This, of course, is a rather straightfoward experimental and empirical task that can be easily explored.

(12) An expected positive relationship was found for affimative responses to the question--does index child talk to adults--to be significantly associated with higher global ratings of the index child in the interview.

(13) Another expected positive relationship was found for ratings of stability of eating arrangements to be significantly associated with greater gains on the Binet criterion (high-low status of index child).

(14) An additional trend ($p < .10 > .05$) indicated that the mother's knowledge of the index child's school activities was associated with greater gains on the Binet criterion (high-low status of index child).

The general "spirit" of much of the foregoing, despite failures of our basic hypotheses (interview ratings vs. high-low status of index children) to be confirmed, is that more differentiated, smaller, knowledgeable, and stable families, in terms of more conforming and less aggressive index children, stable eating arrangements, even mother's wish to work around the house without being interrupted, are associated with higher level cognitive and communicational ratings. In addition, children who talk to adults, or mothers who liked being asked questions,

or children who indicate their mothers like being asked questions all come from families in which there are either higher ratings or in which there are gains on a high-low criterion. But mothers who do not wish to be interrupted when they work around the house (children's assessment--Form I trend only) also tend to receive higher global ratings--a seeming contradiction, which is not, after all, so unexpected in that such mothers are probably more differentiated and less diffuse and "fluid" in overall behavior and goal-orientation.

Some evidence for these general conclusions is reported in the literature. For example, that stability and structure in family styles is positively related to analytic, as opposed to relational response styles, and that the analytic style is related to high achievement, has been suggested by Cohen (1968), on the basis of empirical evidence. We have already alluded to the work of Minuchin et al. (1967) pointing along the same lines. Also, Powell (1968), reported that low achievers among first-grade pupils of low socioeconomic status tended to come from families in which there were more than two siblings in the home.[6]

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[6] That disadvantaged children performed better when there were no more than two siblings at home was one of several significant findings--based on matched groups--that this author reported. His findings were all relevant and appropriate to our own expectations, for example: reading achievement is significantly related to the presence of a newspaper in the home, and disadvantaged children who achieve in reading are judged by their teachers as being able to concentrate better than those of comparable abilities who performed poorly.

Chapter 3

Findings--I

The Interview: Combined Data, Both Forms

Pages 9 to 15 in Chapter 1 present in some detail the nature of the analyses of the Family Interview conducted under the auspices of the current investigation. Findings based on these analyses included: (a) combined interview data from both years vs. family ratings and high-low status; (b) combined interview data from both years--intra-item comparisons; (c) combined interview data from both years--construction of indices; and (d) Form II only--comparison of selected interview items with the scores from the Missouri Children's Picture Series and the Illinois Test of Psycholinguistic Abilities. Details of various procedures employed, for example, the construction of indices, were presented in Chapter 1.

The present chapter presents all findings for (a), while Chapter 4 presents the remainder of the findings for the Interview (b), (c), and (d).

Combined Interview Data, Forms I and II, vs. Family Ratings and High-Low Status[7]

I. Demographic Data: family composition. Within this area, three items were investigated: parental figures living in the household; contact with the father; and number of siblings older than the index

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[7]The findings in this chapter were based on chi-square explorations (Yates-corrected) using four-fold tables with one degree of freedom. Exceptions involve data that were trichotomized, in which case six-fold tables with two degrees of freedom were employed. These are indicated in the text.

child.

A. Parental figures living in the household (Item 1) was dichotomized for both forms into those instances in which only a mother figure lived in the household vs. those in which both parents lived in the household. These comparison groups were cross-tabulated with the following variables:

(1) High-Low Binet status (N: 63)

(2) Global rating of family (N: 66)

(3) Global rating of index child in interview (N: 66)

(4) Global rating of siblings (N: 57)

(5) Rating of mode of communication (N: 66)

(6) Rating of listening and attentional skills (N: 66)

(7) Rating of task furtherance (N: 66)

(8) Rating of conceptual level (N: 66)

All but comparison (7) yielded nonsignificant findings. For comparison (7), where father was present, a greater number of families than expected were rated high in task furtherance, while in those situations where only a mother figure lived in the household, a greater number of families than expected were rated low in task furtherance. ($p < .10 > .05$).

B. Contact with the father (Item 25) was explored by comparing those cases where the father was present in the household with those cases where the father never lived in the household. These groups were cross-tabulated with:

(1) High-Low Binet status (N: 28)

(2) Global rating of family (N: 29)

(3) Global rating of index child in interview (N: 29)

(4) Global rating of siblings (N: 24)

(5) Rating of mode of communication (N: 29)

(6) Rating of listening and attentional skills (N: 29)

(7) Rating of task furtherance (N: 29)

(8) Rating of conceptual level (N: 29)

All comparisons yielded nonsignificant results. For comparisons (6) and (7), however, there were trends ($p < .20 > .10$): a greater number of higher ratings than expected emerged where fathers lived in the household and a greater number of lower ratings than expected emerged where fathers never lived in the household for both of these comparisons.

C. Number of siblings older than the index child (Item 1) was collapsed into two major alternatives for purposes of combined forms: none, and three or more. This was cross-tabulated with:

(1) High-Low Binet status (N: 31)

(2) Global rating of family (N: 34)

(3) Global rating of index child in interview (N: 34)

(4) Global rating of siblings (N: 29)

(5) Rating of mode of communication (N: 34)

(6) Rating of listening and attentional skills (N: 34)

(7) Rating of task furtherance (N: 34)

(8) Rating of conceptual level (N: 34)

In all but comparison (3) results were nonsignificant. For comparison (3), the results indicated a tendency ($p < .10 > .05$) for index children with no older siblings to be rated higher in cognitive style than those index children who had three or more older siblings.

II. Crowdedness and Housing. For both forms, the rating of the condition of house interior was investigated. The two response extremes, excellent versus poor, were employed in the following comparisons with:

(1) High-Low Binet status (N: 17)

(2) Global rating of family (N: 17)

(3) Global rating of index child in interview (N: 17)

(4) Global rating of siblings (N: 15)

(5) Rating of mode of communication (N: 17)

(6) Rating of listening and attentional skills (N: 17)

(7) Rating of task furtherance (N: 17)

(8) Rating of conceptual level (N: 17)

Significant findings or trends emerged for all comparisons but (1) and (8). For these positive findings, the relationships were consistent: specifically, higher ratings of cognitive style were associated with high or excellent ratings of house interiors. For comparisons (2), (6), and (7), the relationship was highly significant ($p < .05$). Trends for this relationship emerged for comparisons (3) and (4) ($p < .10 > .05$) and (5) ($p < .20 > .05$).

III. Family's Origins and Physical Mobility. This area of investigation was explored primarily on the basis of the age the mother left the South (Item 29), split for those mothers who left the South 16 years of age and under and those mothers who left the South 17 years of age and over. This dichotomy was cross-tabulated with:

(1) High-Low Binet status (N: 42)

(2) Global rating of family (N: 44)

(3) Global rating of index child in interview (N: 44)

(4) Global rating of siblings (N: 38)

(5) Rating of mode of communication (N: 44)

(6) Rating of listening and attentional skills (N: 44)

(7) Rating of task furtherance (N: 44)

(8) Rating of conceptual level (N: 44)

All but comparison (1) yielded nonsignificant findings on the basis of the combined samples. For comparison (1) a trend emerged ($p < .20 > .10$): mothers who stayed in the South longer bore index children who achieved greater gains on Binet scores.

IV. Employment Patterns. The major item of interest in this area was whether the mother was working (Item 31). This item was dichotomized, for purposes of combined forms, into those employed full-time and those unemployed. This dichotomy was compared with:

(1) High-Low Binet status (N: 52)

(2) Global rating of family (N: 55)

(3) Global rating of index child in interview (N: 55)

(4) Global rating of siblings (N: 47)

(5) Rating of mode of communication (N: 55)

(6) Rating of listening and attentional skills (N: 55)

(7) Rating of task furtherance (N: 55)

(8) Rating of conceptual level (N: 55)

The foregoing comparisons yielded nonsignificant findings.

V. Mother's Education; Aspirations of and for Children. The items examined in this area were: accuracy of mother's schooling estimate for siblings (including index child); last grade mother completed; and location of mother's schooling.

A. Accuracy of mother's schooling estimate for siblings including index child (Item 4). The cut-offs for this item were: all estimates are accurate or reasonably accurate vs. all estimates show little or only vague accuracy. Cross-tabulations were run with the following variables:

(1) High-Low Binet status (N: 21)

(2) Global rating of family (N: 23)

(3) Global rating of index child in interview (N: 23)

(4) Global rating of siblings (N: 22)

(5) Rating of mode of communication (N: 23)

(6) Rating of listening and attentional skills (N: 23)

(7) Rating of task furtherance (N: 23)

(8) Rating of conceptual level (N: 23)

All but comparisons (5) and (6) yielded nonsignificant results. For comparison (5) a significant relationship ($p < .05$) emerged: when mother's estimates were accurate, family ratings were likely to be higher. Support for this relationship appeared on the basis of the trend ($p < .20 > .10$) which emerged for comparison (6).

B. Last grade mother completed (Item 29). Cut-offs for this item were: 0-9 years of schooling vs. 12 years of schooling or high-school graduation. Cross-tabulations were run with the following:

(1) High-Low Binet status (N: 36)

(2) Global rating of family (N: 39)

(3) Global rating of index child in interview (N: 39)

(4) Global rating of siblings (N: 35)

(5) Rating of mode of communication (N: 39)

(6) Rating of listening and attentional skills (N: 39)

(7) Rating of task furtherance (N: 39)

(8) Rating of conceptual level (N: 39)

In all except comparison (5) nonsignificant results emerged. For comparison (5) a positive trend ($p < .10 > .05$) emerged indicating that families rated high in mode of communication were those families in which mothers had received a greater amount of education.

C. Location of Mother's Schooling (Item 29). Cut-offs for this item were: northern or western urban or suburban (including New York City) vs. southern (urban and rural combined). The following comparisons were explored:

(1) High-Low Binet status (N: 55)

(2) Global family rating (N: 57)

(3) Global rating of index child in interview (N: 57)

(4) Global rating of siblings (N: 49)

(5) Rating of mode of communication (N: 57)

(6) Rating of listening and attentional skills (N: 57)

(7) Rating of task furtherance (N: 57)

(8) Rating of conceptual level (N: 57)

The foregoing comparisons all yielded nonsignificant findings.

VI. Community Participation vs. Isolation. Three items in this area were selected for exploration: does mother belong to clubs or groups; does mother vote; and do children belong to clubs or groups.

A. Does mother belong to clubs or groups (Item 6). The dichotomy for this item was: non-membership in clubs/groups vs. very active membership in one or more clubs/groups. This dichotomy was cross-tabulated with:

(1) High-Low Binet status (N: 46)

(2) Global rating of family (N: 48)

(3) Global rating of index child in interview (N: 48)

(4) Global rating of siblings (N: 42)

(5) Rating of mode of communication (N: 48)

(6) Rating of listening and attentional skills (N: 48)

(7) Rating of task furtherance (N: 48)

(8) Rating of conceptual level (N: 48)

Positive findings emerged in comparisons (2), (3), (4), (7) and (8). Results from comparisons (3) and (8) were highly significant ($p < .02$). These indicate that a higher level of activity of the mother is associated with higher ratings of the index child in the interview and of the conceptual style of the family. Trends ($p < .20 > .10$) reported for comparisons (2), (4), and (7) support these results.

B. Does mother vote (Item 7). The dichotomy employed for this item was: mother votes in most or all elections vs. mother does not vote in any elections. This item was cross-tabulated with:

(1) High-Low Binet status (N: 50)

(2) Global rating of family (N: 53)

(3) Global rating of index child in interview (N: 53)

(4) Global rating of siblings (N: 47)

(5) Rating of mode of communication (N: 53)

(6) Rating of listening and attentional skills (N: 53)

(7) Rating of task furtherance (N: 53)

(8) Rating of conceptual level (N: 53)

In all but comparison (1), results were nonsignificant. Findings based on comparison (1) indicated ($p < .10 > .05$) that there was a greater tendency than expected for the children of frequently voting mothers to achieve greater gains on the Binet, and for children of non-voting mothers to achieve smaller gains on the Binet.

C. Do children belong to clubs or groups (Item 6). The dichotomy employed for this item was: none of the children are members in any clubs or groups vs. all of the children are very active in at least one club or group. The following comparisons were run:

(1) High-Low Binet status (N: 41)

(2) Global rating of family (N: 43)

(3) Global rating of index child in interview (N: 43)

(4) Global rating of siblings (N: 35)

(5) Rating of mode of communication (N: 43)

(6) Rating of listening and attentional skills (N: 43)

(7) Rating of task furtherance (N: 43)

(8) Rating of conceptual level (N: 43)

All the foregoing comparisons resulted in nonsignificant findings.

VII. Availability of Adults for Verbal Interchange. Items in this area included the stability of eating arrangements, the family's verbal interchanges, and the perceptions of these interchanges by the children and the parents.

A. Rating of the stability of the family's eating arrangements (Items 15 and 16). The dichotomy used were of extreme ratings: very stable vs. moderately or very unstable. This was run against the following variables:

(1) High-Low Binet status (N: 31)

(2) Global rating of the family (N: 32)

(3) Global rating of the index child in interview (N: 32)

(4) Global rating of siblings (N: 28)

(5) Rating of mode of communication (N: 32)

(6) Rating of listening and attentional skills (N: 32)

(7) Rating of task furtherance (N: 32)

(8) Rating of conceptual level (N: 32)

In all but comparisons (1) and (4) results were nonsignificant. For comparison (1) a significant result ($p < .05$) emerged: those fam-

ilies rated as being stable in eating arrangements had a greater number of index children than expected achieving high gains on the Binet. Among those families rated as having moderately or very unstable eating arrangements, a greater number of children than expected achieved smaller gains on the Binet. For the minor trend ($p < .20 > .10$) which emerged from comparison (4), a contradictory finding emerged. That is, families rated as having more stable eating arrangements tended to have siblings rated lower in cognitive style.

B. Does index child talk to adults (Item 2). For this item a simple yes-no split was employed. The following comparisons were performed:

(1) High-Low Binet status (N: 63)

(2) Global rating of the family (N: 66)

(3) Global rating of index child in interview (N: 66)

(4) Global rating of siblings (N: 57)

(5) Rating of mode of communication (N: 66)

(6) Rating of listening and attentional skills (N: 66)

(7) Rating of task furtherance (N: 66)

(8) Rating of conceptual level (N: 66)

The only significant finding ($p < .05$) which emerged for this item was for comparison (3): index children who indicated that they did talk to adults tended to receive higher global ratings in the interview.

C. Do children ask mother a lot of questions (children's answer) (Item 32). This item was dichotomized into those instances in which the index child responded yes vs. no. This dichotomy was cross-tabulated with:

(1) High-Low Binet status (N: 59)

(2) Global rating of the family (N: 62)

(3) Global rating of index child in interview (N: 62)

(4) Global rating of siblings (N: 54)

(5) Rating of mode of communication (N: 62)

(6) Rating of listening and attentional skills (N: 62)

(7) Rating of task furtherance (N: 62)

(8) Rating of conceptual level (N: 62)

All comparisons yielded nonsignificant findings. However, comparison (4) yielded a trend ($p < .10 > .05$): index children who indicated that their siblings asked the mother a lot of questions came from families in which the siblings were rated high in cognitive style. For comparison (5) ($p < .20 > .10$) there was an indication for the same direction of relationship.

D. Does mother like to be asked questions--children's assessment (Item 32). This item was split into a yes vs. no response on the part of the index child. The following comparisons were performed:

(1) High-Low Binet status (N: 55)

(2) Global rating of the family (N: 58)

(3) Global rating of index child in interview (N: 58)

(4) Global rating of siblings (N: 50)

(5) Rating of mode of communication (N: 58)

(6) Rating of listening and attentional skills (N: 58)

(7) Rating of task furtherance (N: 58)

(8) Rating of conceptual level (N: 58)

The foregoing comparisons all yielded nonsignificant results.

E. Does mother like to be asked questions--mother's response (Item 33). This item was dichotomized as follows: always or usually

yes vs. always or usually no or sometimes yes, sometimes no. The following comparisons were performed based on this dichotomy:

(1) High-Low Binet status (N: 61)

(2) Global rating of the family (N: 64)

(3) Global rating of index child in interview (N: 64)

(4) Global rating of siblings (N: 56)

(5) Rating of mode of communication (N: 64)

(6) Rating of listening and attentional skills (N: 64)

(7) Rating of task furtherance (N: 64)

(8) Rating of conceptual level (N: 64)

Positive results emerged for all but comparisons (1), (5), and (8). For all these findings the relationship which emerged was the same. That is, where the mother indicated that she liked having the children ask her questions, a greater number of cases than expected were rated higher in cognitive style; where the mother had indicated that she did not or sometimes did not like having her children ask her questions, a greater number of cases than expected were rated lower. This finding was significant ($p < .05$) for comparison (3). The trends reported for comparisons (2) and (7) ($p < .10 > .05$), as well as those for comparisons (4) and (6) ($p < .20 > .10$) lend support to this finding.

F. Why mother likes to be asked questions (Item 33). For this item, responses which made a learning principle explicit were compared with those in which such a principle was not made explicit in the response. The following comparisons were performed for these two groups:

(1) High-Low Binet status (N: 40)

(2) Global rating of the family (N: 42)

(3) Global rating of index child in interview (N: 42)

(4) Global rating of siblings (N: 36).

(5) Rating of mode of communication (N: 42)

(6) Rating of listening and attentional skills (N: 42)

(7) Rating of task furtherance (N: 42)

(8) Rating of conceptual level (N: 42)

Of the foregoing comparisons, only in comparison (8) was there any indication of a relationship between the mother's response and cognitive rating, and this was a trend only. In this case ($p < .20 > .10$), if the mother's response stressed a learning principle, there was a tendency for a greater number of cases than expected to be rated high in conceptual level.

G. Does it bother mother if children talk when she's working around the house--children's assessment (Item 35). Those cases where the index child indicated that it bothered mother were compared with those where he indicated that it did not. The following comparisons were performed:

(1) High-Low Binet status (N: 54)

(2) Global rating of the family (N: 57)

(3) Global rating of index child in interview (N: 57)

(4) Global rating of siblings (N: 49)

(5) Rating of mode of communication (N: 57)

(6) Rating of listening and attentional skills (N: 57)

(7) Rating of task furtherance (N: 57)

(8) Rating of conceptual level (N: 57)

All of the foregoing comparisons resulted in nonsignificant findings.

H. Does it bother mother if children talk when she's shopping--children's assessment (Item 35). Again, the cut-offs were: index child indicates that it does bother mother vs. index child indicates that it

does not bother mother. The following comparisons were computed:

(1) High-Low Binet status (N: 51)

(2) Global rating of the family (N: 54)

(3) Global rating of index child in interview (N: 54)

(4) Global rating of siblings (N: 47)

(5) Rating of mode of communication (N: 54)

(6) Rating of listening and attentional skills (N: 54)

(7) Rating of task furtherance (N: 54)

(8) Rating of conceptual level (N: 54)

None of the above comparisons was found to be significant.

VIII. Availability of Reading Material and Encouragement of Reading. For the purposes of the current analysis, items concerned with reading to the children, telling stories to the children, and the kinds of books read in the home were explored.

A. Does anyone ever read to the children (Item 37). Responses of no vs. yes were cross-tabulated with:

(1) High-Low Binet status (N: 63)

(2) Global rating of the family (N: 66)

(3) Global rating of index child in interview (N: 66)

(4) Global rating of siblings (N: 57)

(5) Rating of mode of communication (N: 66)

(6) Rating of listening and attentional skills (N: 66)

(7) Rating of task furtherance (N: 66)

(8) Rating of conceptual level (N: 66)

All of the foregoing comparisons yielded nonsignificant results.

B. What kinds of books does the index child read (Item 36). The dichotomy, reads books other than school books vs. does not read other

books, was cross-tabulated with:

(1) High-Low Binet status (N: 40)

(2) Global rating of the family (N: 42)

(3) Global rating of index child in interview (N: 42)

(4) Global rating of siblings (N: 36)

(5) Rating of mode of communication (N: 42)

(6) Rating of listening and attentional skills (N: 42)

(7) Rating of task furtherance (N: 42)

(8) Rating of conceptual level (N: 42)

All of the foregoing comparisons yielded nonsignificant results.

C. Does anyone tell stories to the children (Item 37). Yes vs. no responses were cross-tabulated with:

(1) High-Low Binet status (N: 62)

(2) Global rating of the family (N: 64)

(3) Global rating of index child in interview (N: 64)

(4) Global rating of siblings (N: 56)

(5) Rating of mode of communication (N: 64)

(6) Rating of listening and attentional skills (N: 64)

(7) Rating of task furtherance (N: 64)

(8) Rating of conceptual level (N: 64)

All of the foregoing comparisons yielded nonsignificant findings. Comparison (1), however, yielded a trend ($p < .20 > .10$): specifically, low gainers on the Binet tended to come from homes in which stories are reportedly told to the children; high gainers tended to come from homes in which stories are not told to the children.

IX. Parents' Knowledge of Activities and Whereabouts of Children. For this area it was possible to employ items reflecting mother's knowledge

of children's school activities and friends.

A. Mother's recollection of index child's after-school activities (Item 11). This item was dichotomized into responses indicating a clear recollection vs. those indicating vague, little, or no recollection. The following comparisons were performed:

(1) High-Low Binet status (N: 57)

(2) Global rating of the family (N: 60)

(3) Global rating of index child in interview (N: 60)

(4) Global rating of siblings (N: 52)

(5) Rating of mode of communication (N: 60)

(6) Rating of listening and attentional skills (N: 60)

(7) Rating of task furtherance (N: 60)

(8) Rating of conceptual level (N: 60)

None of the foregoing comparisons resulted in significant findings.

B. Mother's recollection of school-age siblings after-school activities--excluding index child (Item 11). Again, for this item the cut-offs were: clear recollection vs. vague, little, or no recollection. The following comparisons were performed:

(1) High-Low Binet status (N: 48)

(2) Global rating of the family (N: 50)

(3) Global rating of index child in interview (N: 50)

(4) Global rating of siblings (N: 45)

(5) Rating of mode of communication (N: 50)

(6) Rating of listening and attentional skills (N: 50)

(7) Rating of task furtherance (N: 50)

(8) Rating of conceptual level (N: 50)

In the foregoing comparisons significant findings did not emerge.

There were some trends, however, involving comparisons (1), (3), and (8). For comparison (1) there was a tendency ($p < .10 > .05$) for greater gains on the Binet to be associated with mother's clear recollection; smaller gains were associated with unclear recollection of the children's activites. The same direction was found also for those trends based on rating scales in comparisons (3) and (8). That is, there was a tendency ($p < .20 > .10$) for a higher rating of the index child and of the family's conceptual level to be associated with mother's clear recollection of her children's activities after school.

C. Extent of mother's knowledge of children's friends (Item 8). For this item, cut-offs were: knows all, most, or many vs. knows some, few or none. The following comparisons were performed:

(1) High-Low Binet status (N: 62)

(2) Global rating of the family (N: 65)

(3) Global rating of index child in interview (N: 65)

(4) Global rating of siblings (N: 56)

(5) Rating of mode of communication (N: 65)

(6) Rating of listening and attentional skills (N: 65)

(7) Rating of task furtherance (N: 65)

(8) Rating of conceptual level (N: 65)

For this item none of the comparisons yielded significant findings.

D. Does mother ask children (age 14 and over) to be home at any particular time in the evening (Item 12). Yes vs. no responses were cross-tabulated with:

(1) High-Low Binet status (N: 30)

(2) Global rating of the family (N: 32)

(3) Global rating of index child in interview (N: 32)

(4) Global rating of siblings (N: 27)

(5) Rating of mode of communication (N: 32)

(6) Rating of listening and attentional skills (N: 32)

(7) Rating of task furtherance (N: 32)

(8) Rating of conceptual level (N: 32)

All of the foregoing comparisons yielded nonsignificant results.

X. Role Assignment and Stability of Roles in the Family. For purposes of the current analysis, it was possible to explore two items--stability of role assignments, and mother's reasons for these assignments.

A. Do children have stable role assignments (Item 14). Responses were dichotomized into extreme response alternatives. Stable vs. unstable role assignment responses were cross-tabulated with:

(1) High-Low Binet status (N: 44)

(2) Global rating of the family (N: 45)

(3) Global rating of index child in interview (N: 45)

(4) Global rating of siblings (N: 40)

(5) Rating of mode of communication (N: 45)

(6) Rating of listening and attentional skills (N: 45)

(7) Rating of task furtherance (N: 45)

(8) Rating of conceptual level (N: 45)

All of the foregoing comparisons yielded nonsignificant results.

B. Why does mother feel that family members should be responsible for doing different things around the house (Item 13). This item was dichotomized into those responses that stressed learning and training vs. those that did not. This was compared with:

(1) High-Low Binet status (N: 43)

(2) Global rating of the family (N: 45)

(3) Global rating of index child in interview (N: 45)

(4) Global rating of siblings (N: 40)

(5) Rating of mode of communication (N: 45)

(6) Rating of listening and attentional skills (N: 45)

(7) Rating of task furtherance (N: 45)

(8) Rating of conceptual level (N: 45)

All of the foregoing comparisons yielded nonsignificant results.

XI. Family Members' Perceptions of Each Other. Items in this area deal primarily with affective content. Specifically, the items deal with the mother's feelings and the children's perceptions of these feelings.

A. Does index child remember anything he/she did that mother was proud of (Item 39). The cut-offs for this item were responses that alluded to school achievement vs. non-school achievement vs. a response of "no" by the index child. For this purpose, 2x3 chi square analyses were performed, based on the following comparisons:

(1) High-Low Binet status (N: 52)

(2) Global rating of the family (N: 54)

(3) Global rating of index child in interview (N: 54)

(4) Global rating of siblings (N: 45)

(5) Rating of mode of communication (N: 54)

(6) Rating of listening and attentional skills (N: 54)

(7) Rating of task furtherance (N: 54)

(8) Rating of conceptual level (N: 54)

The foregoing comparisons did not yield significant findings. However, some trends emerged with regard to comparisons (3) and (6) ($p < .10 > .05$)

and (2) and (7) ($p < .20 > .10$). In all these comparisons, when the index child answered no, there was a tendency for a greater number of cases to be rated low in the various cognitive style ratings involved.

B. How do children know when their mother is proud (Item 39). For this item children's responses indicating mother's verbal expression vs. her physical expression (i.e., facial expression or hugging) of pride were cross-tabulated with the following:

(1) High-Low Binet status (N: 30)

(2) Global rating of the family (N: 30)

(3) Global rating of index child in interview (N: 30)

(4) Global rating of siblings (N: 26)

(5) Rating of mode of communication (N: 30)

(6) Rating of listening and attentional skills (N: 30)

(7) Rating of task furtherance (N: 30)

(8) Rating of conceptual level (N: 30)

There were no significant findings on the basis of the foregoing comparisons. Trends however, appeared with comparison (7) ($p < .20 > .10$) and comparison (8) ($p < .10 > .05$). In both cases, a greater number of families were rated higher in task furtherance and conceptual level when verbal expression was indicated; and a greater number of families were rated low when nonverbal expression was noted.

C. How do children know when their mother is angry (Item 41). This item was split into: mother explains or talks to the children vs. mother threatens the children (i.e. yells or hollers) vs. mother uses physical punishment. Cross-tabulations, involving 2x3 chi-squares, were performed for the following:

(1) High-Low Binet status (N: 31)

(2) Global rating of the family (N: 32)

(3) Global rating of index child in interview (N: 32)

(4) Global rating of siblings (N: 27)

(5) Rating of mode of communication (N: 32)

(6) Rating of listening and attentional skills (N: 32)

(7) Rating of task furtherance (N: 32)

(8) Rating of conceptual level (N: 32)

None of the foregoing yielded significant findings. Two trends ($p < .20 > .10$), however, emerged for comparisons (3) and (4). In the case of comparison (3), when the mother was said to use physical punishment, their index children tended to be rated low in cognitive style. When the mother talked to the children concerning her anger, the index children tended to be rated high in cognitive style. For comparison (4), the siblings tended to be rated low in cognitive style when the mother employed physical punishment; but siblings tended to be rated high in cognitive style when the mother either talked to the children or threatened the children verbally.

D. What does mother do when children have done something she approves of--mother's response (Item 40). The cut-offs for this item were verbal expression of approval vs. non-verbal expression. The following comparisons were performed:

(1) High-Low Binet status (N: 46)

(2) Global rating of the family (N: 49)

(3) Global rating of index child in interview (N: 49)

(4) Global rating of siblings (N: 41)

(5) Rating of mode of communication (N: 49)

(6) Rating of listening and attentional skills (N: 49)

(7) Rating of task furtherance (N: 49)

(8) Rating of conceptual level (N: 49)

With the exception of a trend ($p < .20 > .10$) which emerged for comparison (8), all of the above resulted in nonsignificant findings. For comparison (8), the findings indicated that when the mother verbally expressed her approval, the families tended to be rated higher in conceptual level than when she offered nonverbal expression of approval.

E. What are mother's feelings when she has to punish her children (Item 43). Responses were dichotomized into instances in which the mother stressed discipline as an important factor vs. those instances in which the factors involved in her feelings remained undifferentiated or vague. These groups were compared with:

(1) High-Low Binet status (N: 44)

(2) Global rating of the family (N: 47)

(3) Global rating of index child in interview (N: 47)

(4) Global rating of siblings (N: 40)

(5) Rating of mode of communication (N: 47)

(6) Rating of listening and attentional skills (N: 47)

(7) Rating of task furtherance (N: 47)

(8) Rating of conceptual level (N: 47)

None of the foregoing yielded significant findings. Trends emerged, however, for comparisons (6) and (7) ($p < .10 > .05$). In both comparisons, when the mother's response clearly differentiated discipline as a factor in her feelings, her family tended to be rated high in listening and attentional skills and task furtherance. When the mother's feelings were undifferentiated, a greater number of families tended to be rated lower on these scales.

Chapter 4

Findings--II

The Interview (Continued): Combined Data (Both Forms): Indices; and Further Analysis of Form II (MCPS and ITPA)

This chapter continues and completes the presentation of findings concerning the further analysis of interview material. This chapter, as its title indicates, covers: (a) combined interview data from both years--intra-item comparisons; (b) combined interview data from both years--construction of indices; and (c) Form II only--comparison of selected interview items with the scores from the Missouri Children's Picture Series and the Illinois Test of Psycholinguistic Abilities.

Combined Interview Data, Forms I and II, Intra-Item Comparisons

Items Employed in This Analysis and Their "Splits"

(1) Number of permanent household residents (Item 1). This item was collapsed into three categories: two to four family members; five to six family members; and seven or more family members.

(2) Parental figures living in the household (Item 1). Families in which a mother figure only lived in the household were separated from those in which both parents lived at home.

(3) Age mother left the South (Item 29). Those mothers born in the South were divided into those who left at age 16 or younger and those who left at age 17 or older.

(4) Mother's employment (Item 31). This was dichotomized into instances in which the mother was unemployed vs. those in which the mother was employed fulltime.

(5) Mother's occupational aspiration for index child (Item 4). Responses were sorted into: professional aspirations; mother wants child to choose his own job; and mother indicates that she does not know what job she wants the index child to have.

(6) Index child's occupational aspiration (Item 5). Responses were dichotomized into professional vs. all other aspirations.

(7) Accuracy of mother's schooling estimate for index child (Item 4). Responses were divided into: those that were accurate; those that were reasonably accurate; and those that showed little or no accuracy.

(8) Last grade mother completed (Item 29). Mother's education was categorized into: 0-9 years of schooling; 10-11 years of schooling; and 12 or more years of schooling.

(9) Does mother belong to groups or clubs (Item 6). Two categories were determined for this item: nonmembership in any group or club; and very active membership in at least one group or club.

(10) Do children belong to groups or clubs (Item 6). Responses were dichotomized into: no children belong to groups or clubs vs. all children are active members in at least one group or club.

(11) Does mother vote (Item 7). Responses were split into: mother votes in most or all elections vs. mother votes in some, few, or no elections.

(12) Rating of the stability of the family's eating arrangements (Items 15 and 16). Ratings of very stable eating arrangements vs. combined ratings of moderately or very unstable eating arrangements was the split for this item.

(13) Why mother likes to be asked questions (Item 33). Those responses in which the mother stressed learning were separated from

all nonconceptual responses.

(14) Does anyone ever read to the children (Item 37). Responses of yes were run against responses of no.

(15) Mother's recollection of index child's after-school activities (Item 11). Families in which the mother had a clear recollection of the index child's after-school activities were compared to families in which the mother had vague, little, or no recollection of the index child's activities.

(16) Do children have stable role assignments (Item 14). Families in which roles were stable were compared to those in which roles were unstable.

(17) Why mother feels that children should be responsible for doing different things around the house (Item 13). A dichotomy was created by separating those responses that stressed learning (clearly conceptual responses) from those responses that were not conceptual.

(18) How do children know when their mother is angry (Item 41). Verbal responses on the part of the mother (e.g., she tells them) were separated from all nonverbal responses (e.g., mother's facial expression; mother punishes).

(19) Mother's feelings when she has to punish her children (Item 43). Responses in which a statement of discipline was explicit were separated from those in which discipline was not noted.

(20) How children know when their mother is proud (Item 39). Responses were dichotomized into verbal responses (e.g. she tells us) vs. nonverbal responses (e.g. she smiles or she hugs us).

Findings (Based on the Following Cross-Tabulations)[8]

A. Number of permanent household residents was compared to:

(1) Mother's occupational aspiration for index child (N: 51)

(2) Accuracy of mother's schooling estimate for index child (N: 32)

(3) Does mother belong to groups or clubs (N: 65)

(4) Rating of the stability of the family's eating arrangements (N: 32)

(5) Does anyone ever read to the children (N: 66)

(6) Mother's recollection of index child's after-school activities (N: 60)

(7) Do children have stable role assignments (N: 45)

Of the above comparisons, only comparison (5) yielded a significant result ($p < .02$). This finding indicated that as family size increases there is a greater likelihood that someone in the family will read to the children.

B. Parental figures living in the household was compared to:

(1) Rating of the stability of the family's eating arrangements (N: 32)

(2) Do children have stable role assignments (N: 45)

Neither comparison produced a significant result.

C. Mother's employment was compared to:

(1) Does mother belong to groups or clubs (N: 49)

(2) Rating of the stability of the family's eating arrange-

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[8]These findings were based on chi-square analyses (Yates-corrected) using four-fold, six-fold, and nine-fold tables with respective degrees of freedom of one, two, and four. The particular type of comparison employed can be determined for each analysis by reference to the item "splits" above.

ments (N: 32)

(3) Does anyone ever read to the children (N: 66)

(4) Mother's recollection of index child's after-school activities (N: 59)

(5) Do children have stable role assignments (N: 45)

None of the foregoing yielded significant results.

D. Last grade mother completed was compared to:

(1) Number of permanent household residents (N: 66)

(2) Age mother left the South (N: 44)

(3) Mother's occupational aspiration for index child (N: 51)

(4) Index child's occupational aspiration (N: 58)

(5) Accuracy of mother's schooling estimate for index child (N: 31)

(6) Does mother belong to groups or clubs (N: 48)

(7) Does mother vote (N: 65)

(8) Rating of the stability of the family's eating arrangements (N: 32)

(9) Why mother likes to be asked questions (N: 42)

(10) Does anyone ever read to the children (N: 66)

(11) Mother's recollection of index child's after-school activities (N: 60)

(12) Do children have stable role assignments (N: 45)

(13) Why mother feels that children should be responsible for doing different things around the house (N: 62)

(14) How children know when their mother is angry (N: 36)

(15) Mother's feelings when she has to punish her children (N: 57)

(16) How children know when their mother is proud (N: 30)

None of the foregoing yielded significant findings. However, one strong and three slight trends emerged. For comparison (7), a relationship between mother's education and frequency of voting was suggested ($p < .10 > .05$) in that mothers who were high school graduates tended to vote in most or all elections, while mothers who had 0-9 or 10-11 years of schooling were more likely to vote in some, few, or no elections.

Three slight trends ($p < .20 > .10$) emerged for comparisons (2), (6), and (11). Comparison (2) suggested a tendency for mothers who left the South at age 17 or over to have more years of schooling than mothers who left at age 16 or under. Comparison (6) suggested a relationship between mother's education and membership in groups or clubs. Mothers who had either very little (0-9) or a great deal (12 or more years) of education tended to be active members of at least one club or group. Mothers who had 10-11 years of education tended not to be members of any group or club.

In comparison (11), a suggestion was found for mothers with 10-11 or 12 or more years of schooling to have a clearer recollection of the index child's activities than the mothers with 0-9 years of schooling. The latter mothers tended to have vague, little, or no recollection of the index child's activities.

E. Does mother belong to groups or clubs was compared to:

(1) Do children belong to groups or clubs (N: 31)

(2) Rating of the stability of the family's eating arrangements (N: 25)

(3) Do children have stable role assignments (N: 32)

A slight trend ($p < .20 > .10$) was found for comparison (1) in that mothers who are active members of at least one group or club are likely

to have children who also are active in groups and clubs.

Combined Interview Data, Forms I and II, Construction of Indices

A detailed account of the indices that were constructed in this year's work, and the rationale for them, is presented in Chapter 1 (pp. 11-15). The "splits" used for comparison purposes were presented at that time. The following are the findings in connection with the cross-tabulations employed using these indices.

Findings (Based on the Following Cross-Tabulations)[9]

A. Index of Mother's Activity Level. Cases scoring high on the index of mother's activity level were compared with cases scoring lower on this index on the following variables:

(1) High-Low Binet status (N: 23)

(2) Global rating of the family (N: 25)

(3) Global rating of index child in interview (N: 25)

(4) Global rating of siblings (N: 21)

(5) Rating of mode of communication (N: 25)

(6) Rating of listening and attentional skills (N: 25)

(7) Rating of task furtherance (N: 25)

(8) Rating of conceptual level (N: 25)

There were no significant findings for the foregoing comparisons. There was a trend , however ($p < .20 > .10$), for comparison (8): a higher level of activity tended to be associated with a higher rating of con-

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[9]All of these findings were based on chi-square explorations (Yates-corrected) using four-fold tables with one degree of freedom.

ceptual level, and a lower level of activity, with a lower rating.

B. Index of Mother's Conceptual Level. Cases scoring high on the index of conceptual level were compared with cases scoring low in this index for the following variables:

(1) High-Low Binet status (N: 34)

(2) Global rating of the family (N: 36)

(3) Global rating of index child in interview (N: 36)

(4) Global rating of siblings (N: 31)

(5) Rating of mode of communication (N: 36)

(6) Rating of listening and attentional skills (N: 36)

(7) Rating of task furtherance (N: 36)

(8) Rating of conceptual level (N: 36)

None of the foregoing comparisons resulted in significant findings.

C. Index of Mother's Verbal vs. Nonverbal Orientation. Cases scoring high on this index (mothers consistently give verbal reinforcement) were compared with cases scoring low on this index on the following variables:

(1) High-Low Binet status (N: 13)

(2) Global rating of the family (N: 13)

(3) Global rating of index child in interview (N: 13)

(4) Global rating of siblings (N: 11)

(5) Rating of mode of communication (N: 13)

(6) Rating of listening and attentional skills (N: 13)

(7) Rating of task furtherance (N: 13)

(8) Rating of conceptual level (N: 13)

None of the foregoing comparisons yielded significant findings.

D. Stability Index. Cases scoring high on this index were compared

with cases scoring low on this index on the following variables:

(1) High-Low Binet status (N: 13)

(2) Global rating of the family (N: 14)

(3) Global rating of the index child in interview (N: 14)

(4) Global rating of the siblings (N: 13)

(5) Rating of mode of communication (N: 14)

(6) Rating of listening and attentional skills (N: 14)

(7) Rating of task furtherance (N: 14)

(8) Rating of conceptual level (N: 14)

None of the above comparisons produced significant results.

E. Verbal Encouragement Index. Cases scoring high on the Verbal Encouragement Index were compared with cases scoring low on this index on the following variables:

(1) High-Low Binet status (N: 40)

(2) Global rating of the family (N: 41)

(3) Global rating of the index child in interview (N: 41)

(4) Global rating of siblings (N: 36)

(5) Rating of mode of communication (N: 41)

(6) Rating of listening and attentional skills (N: 40)

(7) Rating of task furtherance (N: 41)

(8) Rating of conceptual level (N: 41)

Although none of the foregoing yielded significant findings, there was a strong trend ($p < .10 > .05$) involving comparison (3): families scoring high on the Verbal Encouragement Index tended to produce index children rated high on the global rating; families receiving low index scores produced index children rated low on the global rating.

F. Index of Mother's Knowledge of Children's Activities. Cases scoring high on this index were compared to cases scoring low on the

following variables:

(1) High-Low Binet status (N: 39)

(2) Global rating of the family (N: 41)

(3) Global rating of the index child in interview (N: 41)

(4) Global rating of the siblings (N: 36)

(5) Rating of mode of communication (N: 41)

(6) Rating of listening and attentional skills (N: 41)

(7) Rating of task furtherance (N: 41)

(8) Rating of conceptual level (N: 41)

None of the foregoing resulted in significant findings. There were slight trends, however, involving comparisons (1) and (8) ($p < .20 > .10$). Comparison (1) suggested that mothers with greater knowledge of their index children's activities tended to have index children making greater gains on the Binet, and vice-versa. Comparison (8) suggested that mothers with greater knowledge of their children's activities tended to have families receiving higher ratings of conceptual level and vice-versa.

G. Consistency of Occupational Aspirations Index. For the following variables, cases where there was consistency between the aspirations between the mother and child were compared with cases in which there was a discrepancy between the aspirations of mother and child on the following variables:

(1) High-Low Binet status (N: 32)

(2) Global rating of the family (N: 34)

(3) Global rating of index child in interview (N: 34)

(4) Global rating of siblings (N: 31)

(5) Rating of mode of communication (N: 34)

(6) Rating of listening and attentional skills (N: 34)

(7) Rating of task furtherance (N: 34)

(8) Rating of conceptual level (N: 34)

All of the foregoing comparisons resulted in nonsignificant findings.

Form II Only--Interview Items vs. MCPS and ITPA Scores

Interview Items Employed in This Analysis and Their "Splits"

(1) Number of permanent household residents (Item 1). This item was collapsed into three categories: two to four family members; five to six family members; and seven or more members.

(2) Parental figures living in the household (Item 1). Families in which a mother figure only lived in the household were compared to those in which both parents lived at home.

(3) Number of siblings older than the index child (Item 1). Families having no or only one sibling older than the index child were compared to those in which there were three or more siblings older than the index child.

(4) Mother's employment (Item 31). This was dichotomized into instances in which the mother was unemployed vs. those in which the mother was employed fulltime.

(5) Index child's absence from school (Item 28). Responses were dichotomized into yes, index child was absent for more than a few days during the school year vs. no, index child was not absent for more than a few days.

(6) Index child's occupational aspirations (Item 5). Responses were dichotomized into professional aspirations vs. all other aspirations.

(7) Last grade mother completed (Item 29). Mother's education was categorized into 0-9 years of schooling; 10-11 years of schooling; and 12 or more years of schooling.

(8) Do children belong to groups or clubs (Item 6). Responses were dichotomized into no children belong to groups or clubs vs. all children are active members in at least one group or club.

(9) Rating of the stability of the family's eating arrangements (Items 15 and 16). Ratings of very stable eating arrangements vs. combined ratings of moderately or very unstable eating arrangements was the split for this item.

(10) Does the index child talk to adults (Item 2). Responses of yes were separated from responses of no.

(11) Does the mother like to be asked questions--children's assessment (Item 32). Families in which the index child answered yes were compared to families in which the index child answered no.

(12) Why mother feels that children should be responsible for doing different things around the house (Item 13). A dichotomy was created by separating those responses that stressed learning (clearly conceptual responses) from those responses that were nonconceptual.

(13) How children know when their mother is angry (Item 41). Verbal responses on the part of the mother (e.g., she tells them) were run against all nonverbal responses (e.g., mother's facial expression; mother punishes).

(14) Mother's feelings when she has to punish her children (Item 43). Responses in which a statement of discipline was explicit were separated from those in which discipline was not noted.

(15) How do children know when their mother is proud (Item 39).

This item was dichotomized into verbal responses vs. nonverbal responses (e.g. she tells us vs. she smiles or she hugs us).

Findings (Based on the Following Cross-Tabulations)[10]

I. Missouri Children's Picture Series. Scores on the MCPS were divided into high and low groups at the median of the distribution of scores for each scale.

A. MCPS Conformity scores were compared to:

(1) Number of permanent household residents (N: 30)

(2) Parental figures living in the household (N: 30)

(3) Number of siblings older than the index child (N: 20)

(4) Mother's employment (N: 30)

(5) Index child's occupational aspirations (N: 26)

(6) Last grade mother completed (N: 30)

(7) Children's participation in clubs (N: 24)

(8) Rating of the stability of the family's eating arrangements (N: 17)

(9) Does the index child talk to adults (N: 30)

(10) Does mother like to be asked questions--children's assessment (N: 24)

(11) How children know when their mother is angry (N: 19)

Comparisons (9) and (11) produced significant results ($p < .05$). For comparison (9), a positive relationship emerged: index children who talk to adults were rated higher in Conformity than children who do not talk to adults. Comparison (11) showed that in families in

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[10]These findings were based on chi-square analyses (Yates-corrected) using either four-fold or six-fold tables with respective degrees of freedom of one and two. The particular type of comparison employed can be determined for each analysis by reference to the item "splits" above (MCPS and ITPA variables were always dichotomized at the median of the respective distributions).

which the children say that the mother gives <u>verbal</u> expression to her anger, index children scored higher in Conformity. In families where children say that the mother expresses herself nonverbally when she is angry, index children received lower scores in Conformity.

Strong trends appeared in comparisons (2) and (6) ($p < .10 > .05$). Comparison (2) findings suggested that when a mother figure only was present, the index child tended to receive a high Conformity score, while the presence of <u>both</u> parents tended to be related to a low score on the Conformity scale. Comparison (6) findings suggested that among mothers who had 0-9 years of schooling, their index children tended to be rated high in Conformity. Among mothers with 10-11 years of schooling, their index children tended to be rated low in Conformity. There were no differences in the Conformity scores of children of mothers with 12 or more years of schooling.

Two slight trends were found for comparisons (1) and (3) ($p < .20 > .10$). In comparison (1), the presence of 2-4 household residents did not appear to be related to Conformity scores. Index children, however, tended to be rated high in Conformity when 5-6 family members lived at home, and conversely, tended to be rated low in Conformity when 7 or more family members lived at home. In comparison (3), no or one older sibling tended to be related to a higher Conformity score, while 3-5 siblings tended to be related to a lower score.

B. MCPS Maturity scores were compared to:

(1) Number of permanent household residents (N: 28)

(2) Parental figures living in the household (N: 28)

(3) Number of siblings older than the index child (N: 19)

(4) Mother's employment (N: 28)

(5) Index child's occupational aspiration (N: 24)

(6) Last grade mother completed (N: 28)

(7) Children's participation in clubs (N: 22)

(8) Rating of the stability of the family's eating arrangements (N: 17)

(9) Does the index child talk to adults (N: 28)

(10) Does mother like to be asked questions--children's assessment (N: 22)

(11) How children know when their mother is angry (N: 18)

None of the foregoing yielded significant findings. An indication of a trend was found in comparison (2) ($p < .20 > .10$), however: the presence of <u>both</u> parents in the home tended to be related to a high score on Maturity for the index children, while the presence of a mother figure only tended to be related to low scores on this scale.

C. MCPS Aggressivity scores were compared to:

(1) Number of permanent household residents (N: 26)

(2) Parental figures living in the household (N: 26)

(3) Number of siblings older than the index child (N: 16)

(4) Mother's employment (N: 26)

(5) Index child's occupational aspiration (N: 22)

(6) Last grade mother completed (N: 26)

(7) Children's participation in clubs (N: 20)

(8) Rating of the stability of the family's eating arrangements (N: 16)

(9) Does the index child talk to adults (N: 26)

(10) Does mother like to be asked questions--children's assessment (N: 21)

(11) How children know when their mother is angry (N: 18)

Of the above comparisons, the only significant result was found for comparison (8) ($p < .02$). Ratings of very stable eating arrangements were found in families in which the index child scored high on Aggressivity, while ratings of moderately or very unstable eating arrangements were made in families in which the index child scored low on this scale.

D. MCPS Inhibition scores were compared to:

(1) Number of permanent household residents (N: 30)

(2) Parental figures living in the household (N:30)

(3) Number of siblings older than the index child (N: 20)

(4) Mother's employment (N: 30)

(5) Index child's occupational aspiration (N: 26)

(6) Last grade mother completed (N: 30)

(7) Children's participation in clubs (N: 24)

(8) Rating of the stability of the family's eating arrangements (N: 17)

(9) Does the index child talk to adults (N: 30)

(10) Does mother like to be asked questions--children's assessment (N: 24)

(11) How children know when their mother is angry (N: 19)

None of the above comparisons produced significant results.

E. MCPS Hyperactivity scores were compared to:

(1) Number of permanent household residents (N: 30)

(2) Parental figures living in the household (N: 30)

(3) Number of siblings older than the index child (N: 20)

(4) Mother's employment (N: 30)

(5) Index child's occupational aspiration (N: 26)

(6) Last grade mother completed (N: 30)

(7) Children's participation in clubs (N: 24)

(8) Rating of the stability of the family's eating arrangements (N: 17)

(9) Does the index child talk to adults (N: 30)

(10) Does mother like to be asked questions--children's assessment (N: 23)

(11) How children know when their mother is angry (N: 19)

None of the foregoing resulted in significant findings. A trend was found in comparison (8) ($p < .20 > .10$), however: Hyperactivity scores tended to be positively related to the rating of the stability of the family's eating arrangements such that stable arrangements tended to be associated with high scores on Hyperactivity, and unstable eating arrangements to low scores on Hyperactivity for the index children.

II. Illinois Test of Psycholinguistic Abilities. Cut-off points for these scores were taken at the median of the distribution of composite (or total) scores for this instrument. This dichotomy was compared with:

(1) Number of permanent household residents (N: 28)

(2) Number of siblings older than the index child (N: 19)

(3) Index child's absence from school (N: 28)

(4) Do children belong to groups or clubs (N: 22)

(5) Why mother feels that children should be responsible for doing different things around the house (N: 26)

(6) Mother's feelings when she has to punish her children (N: 19)

(7) How children know when their mother is proud (N: 13)

None of the above comparisons yielded significant results.

Chapter 5

Findings - Part I

Correlational Analysis: Socio-Personality and Achievement Data

As noted in Chapter 1, our general purpose in the next phase of the analysis was to lay the ground work for creating models for predicting the future academic status of the disadvantaged child. The basic model for this exploration was briefly discussed in Chapter 1. Below is a detailed presentation of the procedures employed.

Our overall model employs two kinds of relationships, concurrent and predictive. In the case of concurrent relationships, concern is with the question of whether various intelligence, achievement, and socio-personality factors are significant correlates of achievement behavior at a given point in time. In the case of predictive relationships, concern is with whether these factors are important (prior) determinants of achievement behavior. Concern is also with the question of whether these factors are, in some way, related to even earlier levels of ability.

The model which is posited deals primarily with degree of relationship among concurrent measures and predictor-criterion variables. Therefore, treatment of data has been strictly confined to appropriate correlational methods. That is, in those instances where continuous scores were employed, product-moment correlation coefficients are reported; where dichotomous scores were employed, non-parametric coefficients of association are reported (phi coefficients); and where both continuous and dichotomous scores were involved, point-biserial correlation coefficients are reported.

The data were collected from four different samples of children (A, B, C, and D, see Chapter 2). In the previous studies, Binet and

PPVT verbal age change scores were employed, and these were dichotomized into high and low designations. In the current analysis, however, change scores for the same subjects were based on IQs and were continuous scores rather than classifications to facilitate the correlational analysis.

In the present analysis, we were concerned with "maximizing" the total sample size for any possible given comparison or analysis. While the model presented below takes into account the four separate samples, A, B, C, and D, it should be noted that any one particular comparison may involve data collected on only one sample or all four samples. For example, where an instrument such as the Classroom Behavior Checklist for Independence and its Z-score designation was employed with two samples (Samples B and D), only these two samples could conceivably be involved in any cross-comparisons. Sample sizes, therefore, varied widely with each of the analyses. When findings are presented, the Ns employed for each comparison are reported.

As noted, the model is divided into two parts--concurrent and predictive relationships. Each involves achievement and intelligence measures as well as socio-personality measures.

I Concurrent Relationships

A. Intelligence and achievement measures vs. intelligence and achievement measures:

(1) Kindergarten level. Interrelationships among the following: Stanford-Binet Intelligence Test IQ; Peabody Picture Vocabulary Test IQ; Columbia Mental Maturity Scale IQ; and Reading Prognosis Test score.

(2) Second grade level. Relationship of the Lorge-Thorndike Intelligence Test IQ score with the Gates-MacGinitie Reading Test vocab-

ulary score.

(3) Third grade level. Interrelationships among the following: Stanford-Binet Intelligence Test IQ; Peabody Picture Vocabulary Test IQ; Columbia Mental Maturity Scale IQ; Wechsler Intelligence Scale for Children--Verbal IQ, Performance IQ, and Full Scale IQ; Metropolitan Achievement Tests in Reading--Word Knowledge scores, and Reading Comprehension scores; Metropolitan Achievement Tests in Arithmetic--Concepts-Problems scores, and Computation scores.

(4) Fourth grade level. Interrelationships among the following: Metropolitan Achievement Tests in Reading--Word Knowledge scores, and Reading Comprehension scores; Iowa Tests of Basic Skills--Language scores, and Arithmetic scores; and the Illinois Test of Psycholinguistic Abilities composite score.

(5) Fifth grade level. Relationship of the Metropolitan Achievement Test in Reading Word Knowledge scores with Reading Comprehension scores.

(6) Change scores. Interrelationships among: Stanford-Binet Intelligence Test IQ change score; Peabody Picture Vocabulary Test IQ change score; and the Columbia Mental Maturity Scale IQ change score.

B. Intelligence and achievement measures related to concurrent socio-personality measures.[11]

(1) Interrelationships at third grade level. Each of the following third grade intelligence and achievement measures was correlated

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[11]Note that various third-grade measures--Fall sociometric choice and rating measures, and Fall Teacher ratings--are not included because they were not concurrent with the achievement measures, which were obtained in the Spring. Two exceptions, the Independence Z-score designation and the Global Rating of Independence, which were based on observations obtained in the Fall, are included. Since these measures were "one-of-a-kind" observations, it was thought best to incorporate them in the concurrent analyses.

with the socio-personality measures below: Stanford-Binet Intelligence Test IQ; Peabody Picture Vocabulary Test IQ; Columbia Mental Maturity Scale IQ; Metropolitan Achievement Tests in Reading--Word Knowledge scores and Reading Comprehension scores; Metropolitan Achievement Tests in Arithmetic--Concepts-Problems scores and Computation scores; Wechsler Intelligence Scale for Children--Verbal IQ, Performance IQ, and Full Scale IQ.

Third grade socio-personality measures include the following: Independence Z-score classifications; global independence ratings; teacher ratings of independence (Spring); sociometric ratings (Spring); sociometric choice Item 1 (Spring); sociometric Choice Item 5 (Spring); creativity battery (all seven tests); MCPS battery (all five tests).

(2) Interrelationships at fourth grade level. Each of the following fourth grade intelligence and achievement measures was correlated with the socio-personality scores below: Metropolitan Achievement Tests in Reading--Word Knowledge scores and Reading Comprehension scores; Iowa Tests of Basic Skills--Language scores and Arithmetic scores; Illinois Test of Psycholinguistic Abilities composite score.

Fourth grade socio-personality measures include the following: MCPS battery (all five scales); rating of family cognitive and communicational style based on the interview (Forms I or II).

II Predictive Relationships

A. Intelligence and achievement measures at an early point in time vs. other intelligence and achievement measures at a later point in time. "Predictors" are listed for the given grade level and criteria are listed by their later grade level. It should be noted that many of the criterion measures are the same for earlier predictive levels. Criterion mea-

sures taken, for example, at the end of fourth grade are identical for Kindergarten, second, and third grade-level predictor instruments. This will be indicated by references to the appropriate listing.

(1) Kindergarten-level "predictors". These are the Stanford-Binet Intelligence Test IQ; Peabody Picture Vocabulary Test IQ; Columbia Mental Maturity Scale IQ; and the Reading Prognosis Test score.

Criteria are the following:

(a) end of second grade: Lorge-Thorndike Intelligence Test IQ; Gates-MacGinitie Reading Test vocabulary score.

(b) end of third grade: Stanford-Binet Intelligence Test IQ; Peabody Picture Vocabulary Test IQ; Columbia Mental Maturity Scale IQ; Wechsler Intelligence Scale for Children--Verbal IQ, Performance IQ, Full Scale IQ; Metropolitan Achievement Tests in Reading--Word Knowledge score and Reading Comprehension score; Metropolitan Achievement Tests in Arithmetic--Concepts and Problems score and Computation score.

(c) end of fourth grade: Metropolitan Achievement Tests in Reading--Word Knowledge score, and Reading Comprehension score; Iowa Tests of Basic Skills--Language scores and Arithmetic scores; Illinois Test of Psycholinguistic Abilities composite score.

(d) end of fifth grade: Metropolitan Achievement Tests in Reading--Word Knowledge score and Reading Comprehension score.

(2) Second grade-level "predictors". These are the Lorge-Thorndike Intelligence IQ; and Gates-MacGinitie Reading Test vocabulary score.

Criteria are those reported above under A (1) (b), (c), and (d) for third, fourth, and fifth grades.

(3) Third grade-level "predictors". These include Stanford-

Binet Intelligence Test IQ; Peabody Picture Vocabulary Test IQ; Columbia Mental Maturity Scale IQ; Metropolitan Achievement Test in Reading--Word Knowledge score and Reading Comprehension score; Metropolitan Achievement Tests in Arithmetic--Concepts and Problems score and Computation score; Wechsler Intelligence Scale for Children--Verbal IQ, Performance IQ, and Full Scale IQ.

Criteria are those reported above under A (1) (c) and (d) for fourth and fifth grades.

(4) Fourth grade-level "predictors". These include the Metropolitan Achievement Tests in Reading--Word Knowledge score and Reading Comprehension score; Iowa Tests of Basic Skills--Language score and Arithmetic score; and the Illinois Test of Psycholinguistic Abilities composite score.

Criteria are those reported above under A (1) (d) for fifth grade.

(5) Change score "predictors". These include the Stanford-Binet Intelligence Test IQ change score; the Peabody Picture Vocabulary Test IQ change score; and the Columbia Mental Maturity Scale IQ change score.

Criteria are those reported above under A (1) (c) and (d) for fourth and fifth grades.

B. Intelligence and achievement measures taken at an early point in time with socio-personality measures taken later in time. "Predictors" are listed for the given earlier grade level and criteria are listed by their later grade level.

(1) Kindergarten-level "predictors". These include Stanford-Binet Intelligence Test IQ; Peabody Picture Vocabulary Test IQ; Columbia Mental Maturity Scale IQ; and Reading Prognosis Test score.

Criteria include the following:

(a) third grade level: Z-score designation; global ratings of Independence; teacher ratings of independence (Fall and Spring); sociometric ratings (Fall and Spring); sociometric choice Item 1 (Fall and Spring); sociometric choice Item 5 (Fall and Spring); MCPS battery (all five scales); and the creativity battery (all seven scales).

(b) fourth grade level: MCPS battery (all five scales); and ratings of cognitive and communicational style based on the interview (Forms I and II).

(2) Second grade-level "predictors". These include Lorge-Thorndike Intelligence Test IQ; and Gates-MacGinitie Reading Test vocabulary score.

Criteria are those reported immediately above under B (1) (a) and (b) for third and fourth grades.

(3) Third grade-level "predictors". These include Stanford-Binet Intelligence Test IQ; Peabody Picture Vocabulary Test IQ; Columbia Mental Maturity Scale IQ; Wechsler Intelligence Scale for Children--Verbal IQ, Performance IQ, and Full Scale IQ; Metropolitan Achievement Tests in Reading--Word Knowledge score and Reading Comprehension score; and Metropolitan Achievement Tests in Arithmetic--Concepts and Problems score and Computations score.

Criteria are those reported above under B (1) (b) for the fourth grade.

(4) Change score "predictors". These include the Stanford-Binet Intelligence Test IQ change score; the Peabody Picture Vocabulary Test IQ change score; and the Columbia Mental Maturity Scale IQ change score.

Criteria are those reported above under B (1) (b) for fourth grade.

C. Socio-personality measures at an early point in time with intelligence and achievement measures taken at a later point in time. Predictors are listed for the given grade level and criteria are listed by their later grade level.

(1) Third grade-level "predictors". These are the Z-score designations; global ratings of independence; teacher rating of independence (Fall and Spring); sociometric ratings (Fall and Spring); Sociometric choice item 1 (Fall and Spring); sociometric choice item 5 (Fall and Spring); MCPS battery (all five scales); and the creativity battery (all seven scales).

Criteria include the following:

(a) end of fourth grade: Metropolitan Achievement Tests in Reading--Word Knowledge score and Reading Comprehension score; Iowa Tests of Basic Skills--Language score and Arithmetic score; and the Illinois Test of Psycholinguistic Abilities composite score.

(b) end of fifth grade: Metropolitan Achievement Tests in Reading--Word Knowledge score and Reading Comprehension score.

(2) Fourth grade-level "predictors". These are the MCPS battery (all five scales); and the ratings of cognitive and communicational style derived from the interview (Forms I and II).

Criteria are those listed under C (1) (b) for fifth grade.

D. Socio-personality measures at an early point in time with other socio-personality measures taken at a later point in time. Because there was some "overlap" in Samples B and C (see Chapter 2), it is possible to examine the predictive value of various socio-personality measures to other socio-personality measures. The N for Ss who are both

in Samples B and C is 20.

(1) Third grade-level "predictors". These include the $\frac{2}{3}$-score designations and the global ratings of independence.

Criteria at the fourth grade level are the MCPS (all five scales); and the ratings of cognitive and communicational style based on the interview (Form II only).

Scoring and Related Coding Procedures

As mentioned earlier, scores which were employed in the present research were both of a continuous and dichotomous nature. It should be noted that in previous years' analyses, the data were in some cases artificially dichotomized, thus permitting easier handling, for example, High-Low Binet status, MCPS subscale status, etc. In the present study, however, continuous scores were used whenever available in an attempt to retain the information contained in the scores and to permit more powerful, parametric treatment of the data.

Instruments providing continuous scores. The following instruments provided distributions of continuous scores for analysis purposes (each is followed by the number assigned in Chapter 2): Stanford-Binet Intelligence Test IQ score and change score (17); Peabody Picture Vocabulary Test IQ score and change score (18); Columbia Mental Maturity Scale IQ score and change score (21); Reading Prognosis Test score (22); Lorge-Thorndike Intelligence Test IQ (19); Wechsler Intelligence Scale for Children (20)--Verbal IQ (20a), Performance IQ (20b), and Full Scale IQ (20c); Gates-MacGinitie Reading Test vocabulary score (24); Illinois Test of Psycholinguistic Abilities composite score (12); MCPS T-scores for each of five scales (Maturity, Conformity, Aggressivity, Inhibition,

Hyperactivity) (11 and 16); creativity battery subtest raw scores (seven scales) (15); and sociometric ratings (Fall and Srping) (13a). Note: Since the number of cases for the Gates-MacGinitie measure is the largest for the end of second grade level, this, rather than the Kindergarten and third grade levels used for the 1968-1969 High-Low Sample A (see "Chapter 2, p.23), was used in the current analysis.

For IQ and reading test data (17, 18, 21, 19, 20, 22, 26, 12), standard scores were employed in accordance with published recommendations. In all cases, a higher score indicated a greater amount of the trait in question, that is, intelligence, reading ability, psycholinguistic ability. It should be noted that for change scores, specifically those based on the Stanford-Binet, Peabody Picture Vocabulary, and Columbia Mental Maturity tests at the end of Kindergarten and third grades, a constant (=10) was added to eliminate negatively signed values on any of the given instruments.

These instruments "tailored" to our previous research (13a, 15) were discussed more fully in prior reports. For sociometric ratings (13a), proportion scores (converted from ratio scores obtained by the number of times S was chosen as liked over the total number of times S was chosen) were employed. In this case, a higher score indicates higher popularity in the class. Scoring techniques for the creativity battery (15) were also reported in a previous report (Final Report for the Independence Study). In this case, seven scores were employed, reflecting verbal and figural creativity. Scores varied unidirectionally on all seven scales.

Finally, it should be noted that for the MCPS battery (11 and 16), Samples C and D were treated separately for analysis purposes. The

scores employed are those which the test developers provided (T-scores). They take into consideration age and sex of S. The major reason for treating the samples separately, regardless of the correction for age and sex, is because of the point at which the battery was administered to each of the samples. The test was administered at different grade levels for each sample; Sample C received the battery in the third grade while Sample D received the battery in the fourth grade. Whether this difference matters in terms of the relationships which emerge with this battery is a concern in the present study.

Instruments providing dichotomous scores. Measures which employed dichotomous scores were: Metropolitan Achievement Tests in Reading--Word Knowledge score and Reading Comprehension score (23a and b); Metropolitan Achievement Tests in Arithmetic--Concepts and Problems score and Computation score (24a and b); Iowa Tests of Basic Skills--Language score and Arithmetic score (25a and b); Z-score designation (6, 9); global ratings of independence (7, 10); teacher ratings of independence (Fall and Spring) (14); sociometric choice score--Items 1 and 5 (Fall and Spring) (13b); and ratings of cognitive and communicational style based on the interview (3, 5).

Of the foregoing, the Metropolitan and Iowa tests were administered under the auspices of the Board of Education of New York City. In all cases, the score reported was a grade-equivalent score. There is some reported difficulty in interpreting differences between such equivalence scores within a given grade, as well as across grades (Findley, 1965; Page, 1965). For present purposes, therefore, a simple dichotomous at/above vs. below grade level cutoff was employed to more clearly identify achievement differences. Because achievement measures were administered

during the Spring of each year (usually March, the seventh month of the academic year), it was assumed that grade level performance reflected performance of the average student having completed at least half of the year in the given grade. In this manner, grade level performance lies within the range of the fifth and ninth months of grade completion. Below grade level, then, included performance falling below the fifth month of the given grade. For analysis purposes, cases were scored higher (a score of +1) where S performed at or above grade level. Those Ss performing below grade level were given a score of zero (0).

For the remaining measures (the independence measures, as well as the sociometric measures and ratings of cognitive style), the scores employed for coding and analysis were based on scoring techniques already developed. For the Classroom Behavior Checklist for Independence, global ratings of independence, and teachers' ratings of independence, a simple independent vs. non-independent cut-off was employed. The non-independent code included ratings which fell into the dependent and pseudoindependent categories. Independent was scored as (+1)and nonindependent was scored as zero (0) for coding and analysis purposes. For the sociometric choice items (1 and 5), higher popularity was scored a (+1), while low popularity was scored as zero (0). Finally, for ratings of cognitive and communicational style, scores above the scale midpoint (scale points 1, 2, and 3) were scored high (a score of +1), while scores below the scale midpoint (scale points 4, 5 and 6) were scored low (a score of zero) (0).

Coding and analysis procedures. The coding format for the foregoing continuous and dichotomous scores involved a simple reproduction of data obtained onto IBM cards. Data for each S was placed on coding sheets,

identifiable by the S's Institute number. Cross-checking of this step permitted the card-punching operation. Cards were punched and verified by two independent staff members. Facilities at New York University's Courant Institute of Mathematical Sciences were employed for processing and analysis. An IBM/CDC-6600 was used in running a Biomedical Computer Program (BMD03D) for correlation with item deletion. This program provides a printout of a correlation matrix for a maximum of ninety variables.

Means and Standard Deviations of Foregoing Variables

Table 9 presents means and standard deviations for the variables employed in the present study. For each variable, the sample N is also reported. Note, the actual Ns varied from comparison to comparison, being determined by the size of the overlap of the Ss given any two instruments at any given time(s). For the dichotomous variables reported, the Metropolitan Achievement Tests, the Iowa Achievement Tests, measures of independence, sociometric choice items, and rating scales in the interview--the mean values reported are the proportion (p) of cases scoring higher or scored 1 in this instance. As for all binomial distributions, the standard deviation is a multiplicative function of this value (p) and (q) or (1-p). The descriptive statistics presented for the Missouri Children's Picture Series are reported separately for Samples C and D. These data were held separately for analyses because two different grade levels were involved for each administration.

Finally, regarding change scores reported for the Stanford-Binet, Peabody Picture Vocabulary, and Columbia Mental Maturity intelligence tests, it was noted earlier that for ease of data handling, a constant (+50) was added to eliminate negatively signed values. In Table 9, however, the actual mean changes in IQ between Kindergarten and third grade

are reported. For the Stanford-Binet change score, for example, there was a decrease in overall performance. Standard deviations reported in the table for change scores reflect the wide variations in change scores above and below zero change.

Findings

For purposes of the most efficient presentation, the remainder of this chapter will be in the format of an extremely long table. This table contains abbreviations for all of the measures employed. These, for reasons of ease of interpretation of the findings, are presented below:

Intelligence and Achievement Measures	Abbreviations
(1) Stanford-Binet	S-B
(2) Peabody Picture Vocabulary Test	PPVT
(3) Columbia Mental Maturity Scale	CMMS
(4) Reading Prognosis Test	Reading Prog.
(5) Lorge-Thorndike Intelligence Test	L-T
(6) Gates-MacGinitie Reading Test (Vocabulary)	Gates
(7) Wechsler Intelligence Scale for Children--Full Scale IQ	WISC Full
(8) Wechsler Intelligence Scale for Children--Verbal Scale IQ	WISC Verbal
(9) Wechsler Intelligence Scale for Children--Performance Scale IQ	WISC Perform.
(10) Metropolitan Achievement Test: Reading (Word Knowledge)	MAT Reading (Wd. Knl.)
(11) Metropolitan Achievement Test: Reading (Comprehension)	MAT Reading (Compr.)
(12) Metropolitan Achievement Test: Arithmetic (Concepts and Problems)	MAT Arith. (C. & P.)
(13) Metropolitan Achievement Test: Arithmetic (Computation)	MAT Arith. (Comp.)
(14) Iowa Test of Basic Skills: Language	Iowa Lang.

(15)	Iowa Test of Basic Skills: Arithmetic	Iowa Arith.
(16)	Illinois Test of Psycholinguistic Abilities	ITPA
	Socio-Personality Measures	
(17)	Classroom Behavior Checklist: Z-score Classification	Ind. Chklst. Classif.
(18)	Global Ratings of Independence (Checklist)	Global Ind. Rating
(19)	Teachers' Ratings of Independence (Spring)	Spr. Teachers' Rating of Ind.
(20)	Spring Sociometric Rating	Spr. Socio. Rating
(21)	Spring Sociometric Choice--Item 1	Spr. Socio. Choice #1
(22)	Spring Sociometric Choice--Item 5	Spr. Socio. Choice #5
(23)	Creativity (Verbal Fluency)	Creativity (Ver. Flu.)
(24)	Creativity (Verbal Flexibility)	Creativity (Ver. Flex.)
(25)	Creativity (Verbal Originality)	Creativity (Ver. Orig.)
(26)	Creativity (Figural Fluency)	Creativity (Fig. Flu.)
(27)	Creativity (Figural Flexibility)	Creativity (Fig. Flex.)
(28)	Creativity (Figural Originality)	Creativity (Fig. Orig.)
(29)	Creativity (Figural Elaboration)	Creativity (Fig. Elab.)
(30)	Missouri Children's Picture Series: Conformity	MCPS Conf.
(31)	Missouri Children's Picture Series: Maturity	MCPS Mat.
(32)	Missouri Children's Picture Series: Aggressivity	MCPS Agg.
(33)	Missouri Children's Picture Series: Inhibition	MCPS Inh.
(34)	Missouri Children's Picture Series: Hyperactivity	MCPS Hyper.
	Cognitive and Communicational Ratings of Family Members	
(35)	Global Rating of Family	Global Rating of Fam.
(36)	Global Rating of Index Child In Interview	Global Rating of Index Ch.

(37)	Global Rating of Siblings	Global Rating of Sibs.
(38)	Rating of Mode of Communication	Mode of Commun.
(39)	Rating of Listening and Attentional Skills	Listen. & Atten. Skills
(40)	Rating of Task Furtherance	Task Furth.
(41)	Rating of Conceptual Level	Concept. Level

I Correlations of Concurrent Measures

A. Intelligence and Achievement Measures vs. Concurrent Intelligence and Achievement Measures

	Comparison	N	r[12]	p[13]
	End of Kindergarten			
(1)	S-B & PPVT	97	.53	$<.01$
(2)	S-B & CMMS	96	.33	$<.01$
(3)	S-B & Reading Prog.	83	.46	$<.01$
(4)	PPVT & CMMS	96	.12	
(5)	PPVT & Reading Prog.	82	.42	$<.01$
(6)	CMMS & Reading Prog.	81	.17	
	End of Second Grade			
(7)	L-T & Gates	78	.30	$<.01$
	End of Third Grade			
(8)	S-B & PPVT	85	.52	$<.01$

[12] All correlation coefficients reported are Pearson product-moment correlations for two continuous distributions unless otherwise indicated. Point biserial coefficients of correlation are indicated by one asterisk (*). Phi coefficients of correlation are indicated by two asterisks (**).

[13] Probability levels are for two-tailed tests with n-2 degrees of freedom. Blanks denote probability levels greater than .10.

	Comparison	N	r	p
(9)	S-B & CMMS	85	.36	<.01
(10)	S-B & WISC Verbal	35	.78	<.01
(11)	S-B & WISC Perform.	35	.38	<.05
(12)	S-B & WISC Full	35	.71	<.01
(13)	S-B & MAT Reading (Wd. Knl.)	78	.51*	<.01
(14)	S-B & MAT Reading (Compr.)	78	.46*	<.01
(15)	S-B & MAT Arith. (C. & P.)	78	.51*	<.01
(16)	S-B & MAT Arith. (Comp.)	78	.29*	<.01
(17)	PPVT & CMMS	87	.40	<.01
(18)	PPVT & WISC Verbal	35	.37	<.05
(19)	PPVT & WISC Perform.	35	.18	
(20)	PPVT & WISC Full	35	.36	<.05
(21)	PPVT & MAT Reading (Wd. Knl.)	80	.34*	<.01
(22)	PPVT & MAT Reading (Compr.)	80	.46*	<.01
(23)	PPVT & MAT Arith. (C. & P.)	80	.34*	<.01
(24)	PPVT & MAT Arith. (Comp.)	80	.35*	<.01
(25)	CMMS & WISC Verbal	35	.27	
(26)	CMMS & WISC Perform.	35	.42	<.05
(27)	CMMS & WISC Full	35	.44	<.01
(28)	CMMS & MAT Reading (Wd. Knl.)	80	.35*	<.01
(29)	CMMS & MAT Reading (Compr.)	80	.32*	<.01
(30)	CMMS & MAT Arith. (C. & P.)	80	.30*	<.01
(31)	CMMS & MAT Arith. (Comp.)	80	.42*	<.01
(32)	WISC Verbal & WISC Perform.	36	.42	<.01
(33)	WISC Verbal & WISC Full	36	.81	<.01
(34)	WISC Verbal & MAT Reading (Wd. Knl.)	32	.46*	<.01

	Comparison	N	r	p
(35)	WISC Verbal & MAT Reading (Compr.)	32	.30*	<.10
(36)	WISC Verbal & MAT Arith. (C. & P.)	33	.37*	<.05
(37)	WISC Verbal & MAT Arith. (Comp.)	33	.28*	
(38)	WISC Perform. & WISC Full	36	.85	<.01
(39)	WISC Perform. & MAT Reading (Wd. Knl.)	32	.60*	<.01
(40)	WISC Perform. & MAT Reading (Compr.)	32	.34*	<.10
(41)	WISC Perform. & MAT Arith. (C. & P.)	33	.53*	<.01
(42)	WISC Perform. & MAT Arith. (Comp.)	33	.45*	<.01
(43)	WISC Full & MAT Reading (Wd. Knl.)	32	.61*	<.01
(44)	WISC Full & MAT Reading (Compr.)	32	.38*	<.05
(45)	WISC Full & MAT Arith. (C. & P.)	33	.51*	<.01
(46)	WISC Full & MAT Arith. (Comp.)	33	.45*	<.01
(47)	MAT Reading (Wd. Knl.) & MAT Reading (Compr.)	98	.56**	<.01
(48)	MAT Reading (Wd. Knl.) & MAT Arith. (C. & P.)	93	.41**	<.01
(49)	MAT Reading (Wd. Knl.) & MAT Arith. (Comp.)	93	.42**	<.01
(50)	MAT Reading (Compr.) & MAT Arith. (C. & P.)	93	.50**	<.01
(51)	MAT Reading (Compr.) & MAT Arith. (Comp.)	93	.44**	<.01
(52)	MAT Arith. (C. & P.) & MAT Arith. (Comp.)	110	.64**	<.01

End of Fourth Grade

(53)	MAT Reading (Wd. Knl.) & MAT Reading (Compr.)	90	.57**	<.01
(54)	MAT Reading (Wd. Knl.) & Iowa Lang.	46	.36**	<.05
(55)	MAT Reading (Wd. Knl.) & Iowa Arith.	47	.42**	<.01
(56)	MAT Reading (Wd. Knl.) & ITPA	31	.55*	<.01
(57)	MAT Reading (Compr.) & Iowa Lang.	46	.46**	<.01
(58)	MAT Reading (Compr.) & Iowa Arith.	47	.32**	<.05

	Comparison	N	r	p
(59)	MAT Reading (Compr.) & ITPA	31	.50*	<.01
(60)	Iowa Lang. & Iowa Arith.	48	.46**	<.01
(61)	Iowa Lang. & ITPA	15	.12*	
(62)	Iowa Arith. & ITPA	14	.23*	
	End of Fifth Grade			
(63)	MAT Reading (Wd. Knl.) & MAT Reading (Compr.)	53	.70**	<.01
	Change Scores (Third Grade - End of Kindergarten)			
(64)	S-B Change & PPVT Change	73	.15	
(65)	S-B Change & CMMS Change	73	.09	
(66)	PPVT Change & CMMS Change	74	.21	<.10

B. Intelligence and Achievement Measures vs. Concurrent Socio-Personality Measures[14]

	End of Third Grade			
(67)	S-B & Ind. Chklst. Classif.	31	.23*	
(68)	S-B & Global Ind. Rating	37	.24*	
(69)	PPVT & Ind. Chklst. Classif.	31	.17*	

[14]As noted earlier in the text, all socio-personality measures have been scored so that a higher score or rating on a measure reflects a greater degree of the trait measured. For example, a positive correlation between the Stanford-Binet and the Independence Checklist Classification means that Ss with higher scores on the Stanford-Binet tended to be classified as independent (rather than dependent or pseudoindependent). Similarly a positive correlation between the MAT Reading (Word Knowledge) and the Spring Sociometric Rating indicated that Ss scoring higher on the MAT were rated as better liked by their classmates.

	Comparison	df	t	p
(70)	FVVT & Global Ind. Rating	37	=.05*	
(71)	CMMS & Ind. Child. Classif.	34	.19*	
(72)	CMMS & Global Ind. Rating	37	.04*	
(73)	MAT Reading (Wd. Knl.) & Ind. Child. Classif.	34	.01**	
(74)	MAT Reading (Wd. Knl.) & Global Ind. Rating	35	.00**	< .01
(75)	MAT Reading (Wd. Knl.) & Spr. Teachers' Rating of Ind.	35	.01**	< .01
(76)	MAT Reading (Wd. Knl.) & Spr. Socio. Rating	18	.31*	
(77)	MAT Reading (Wd. Knl.) & Spr. Socio. Choice #2	18	.00**	< .01
(78)	MAT Reading (Wd. Knl.) & Spr. Socio. Choice #5	18	.02**	
(79)	MAT Reading (Wd. Knl.) & Creativity (Num. Flu.)	18	.06*	< .05
(80)	MAT Reading (Wd. Knl.) & Creativity (Num. Flex.)	18	=.31*	
(81)	MAT Reading (Wd. Knl.) & Creativity (Num. Orig.)	18	.10*	
(82)	MAT Reading (Wd. Knl.) & Creativity (Fig. Flu.)	18	.05*	
(83)	MAT Reading (Wd. Knl.) & Creativity (Fig. Flex.)	18	.03*	
(84)	MAT Reading (Wd. Knl.) & Creativity (Fig. Orig.)	18	.09*	
(85)	MAT Reading (Wd. Knl.) & Creativity (Fig. Comb.)	18	=.19*	
(86)	MAT Reading (Wd. Knl.) & MEPS Conf. (Sample 1)	18	.01**	
(87)	MAT Reading (Wd. Knl.) & MEPS Det. (Sample 1)	18	=.31*	
(88)	MAT Reading (Wd. Knl.) & MEPS Agg. (Sample 1)	18	.12*	
(89)	MAT Reading (Wd. Knl.) & MEPS Sch. (Sample 1)	18	=.08*	
(90)	MAT Reading (Wd. Knl.) & MEPS Hyper. (Sample 1)	18	=.21*	
(91)	MAT Reading (Compr.) & Ind. Child. Classif.	36	=.02**	
(92)	MAT Reading (Compr.) & Global Ind. Rating	40	.00**	
(93)	MAT Reading (Compr.) & Spr. Teachers' Rating of Ind.	37	.01**	< .05
(94)	MAT Reading (Compr.) & Spr. Socio. Rating	18	.11*	

	Comparison	#	$\hat{\alpha}$	p
(95)	Mill Bowling (Comp$_{\circ}$) & Spr$_{\circ}$ Socio$_{\circ}$ Choices #1	16	-0.03^{**}	< 0.01
(96)	Mill Bowling (Comp$_{\circ}$) & Spr$_{\circ}$ Socio$_{\circ}$ Choices #5	16	-0.05^{**}	< 0.01
(97)	Mill Bowling (Comp$_{\circ}$) & Connectivity (Mon$_{\circ}$ Flu$_{\circ}$)	16	-0.02^{*}	
(98)	Mill Bowling (Comp$_{\circ}$) & Connectivity (Mon$_{\circ}$ Flu$_{\circ}$)	16	-0.00^{*}	
(99)	Mill Bowling (Comp$_{\circ}$) & Connectivity (Mon$_{\circ}$ Emig$_{\circ}$)	16	-0.03^{*}	
(100)	Mill Bowling (Comp$_{\circ}$) & Connectivity (Fig$_{\circ}$ Flu$_{\circ}$)	16	-0.05^{*}	
(101)	Mill Bowling (Comp$_{\circ}$) & Connectivity (Fig$_{\circ}$ Flu$_{\circ}$)	16	-0.28^{*}	
(102)	Mill Bowling (Comp$_{\circ}$) & Connectivity (Fig$_{\circ}$ Emig$_{\circ}$)	16	-0.07^{*}	
(103)	Mill Bowling (Comp$_{\circ}$) & Connectivity (Fig$_{\circ}$ Emig$_{\circ}$)	16	-0.07^{*}	
(104)	Mill Bowling (Comp$_{\circ}$) & NEIS Cond$_{\circ}$ (Sample 3)	16	-0.36^{*}	
(105)	Mill Bowling (Comp$_{\circ}$) & NEIS Mob$_{\circ}$ (Sample 3)	16	-0.09^{*}	
(106)	Mill Bowling (Comp$_{\circ}$) & NEIS Agg$_{\circ}$ (Sample 3)	16	-0.23^{*}	
(107)	Mill Bowling (Comp$_{\circ}$) & NEIS Sab$_{\circ}$ (Sample 3)	16	-0.28^{*}	
(108)	Mill Bowling (Comp$_{\circ}$) & NEIS Hyper$_{\circ}$ (Sample 3)	16	-0.01^{*}	
(109)	Mill Switch$_{\circ}$ (E$_{\circ}$ & F$_{\circ}$) & Ind$_{\circ}$ Distort$_{\circ}$ Closest$_{\circ}$	91	-0.04^{***}	
(110)	Mill Switch$_{\circ}$ (E$_{\circ}$ & F$_{\circ}$) & Distort Ind$_{\circ}$ Betting	54	-0.05^{***}	
(111)	Mill Switch$_{\circ}$ (E$_{\circ}$ & F$_{\circ}$) & Spr$_{\circ}$ Tomahawk^{0} Betting of Ind$_{\circ}$	27	-0.12^{***}	< 0.01
(112)	Mill Switch$_{\circ}$ (E$_{\circ}$ & F$_{\circ}$) & Spr$_{\circ}$ Socio$_{\circ}$ Betting	30	-0.04^{*}	
(113)	Mill Switch$_{\circ}$ (E$_{\circ}$ & F$_{\circ}$) & Spr$_{\circ}$ Socio$_{\circ}$ Choices #3	27	-0.03^{***}	< 0.01
(114)	Mill Switch$_{\circ}$ (E$_{\circ}$ & F$_{\circ}$) & Spr$_{\circ}$ Socio$_{\circ}$ Choices #5	24	-0.10^{***}	< 0.01
(115)	Mill Switch$_{\circ}$ (E$_{\circ}$ & F$_{\circ}$) & Connectivity (Mon$_{\circ}$ Flu$_{\circ}$)	28	-0.01^{*}	< 0.01
(116)	Mill Switch$_{\circ}$ (E$_{\circ}$ & F$_{\circ}$) & Connectivity (Mon$_{\circ}$ Flu$_{\circ}$)	28	-0.01^{*}	
(117)	Mill Switch$_{\circ}$ (E$_{\circ}$ & F$_{\circ}$) & Connectivity (Mon$_{\circ}$ Emig$_{\circ}$)	21	-0.00^{*}	< 0.01
(118)	Mill Switch$_{\circ}$ (E$_{\circ}$ & F$_{\circ}$) & Connectivity (Fig$_{\circ}$ Flu$_{\circ}$)	30	-0.01^{*}	
(119)	Mill Switch$_{\circ}$ (E$_{\circ}$ & F$_{\circ}$) & Connectivity (Fig$_{\circ}$ Flu$_{\circ}$)	30	-0.01^{*}	
(120)	Mill Switch$_{\circ}$ (E$_{\circ}$ & F$_{\circ}$) & Connectivity (Fig$_{\circ}$ Emig$_{\circ}$)	30	-0.00^{*}	

Comparison	N	r	p
(5.21) MOS Aesth. (E_o & F_o) & Creativity (Fig. Elab.)	30	-.08*	
(5.22) MOS Aesth. (E_o & F_o) & MEPS Conf. (Simple D)	30	.43*	< .01
(5.23) MOS Aesth. (E_o & F_o) & MEPS Mat. (Simple D)	30	-.37*	< .05
(5.24) MOS Aesth. (E_o & F_o) & MEPS Agg. (Simple D)	30	.13*	
(5.25) MOS Aesth. (E_o & F_o) & MEPS Inh. (Simple D)	30	-.43*	< .01
(5.26) MOS Aesth. (E_o & F_o) & MEPS Hygmot. (Simple D)	30	.24*	
(5.27) MOS Aesth. (Comp.) & Ind. Children. Classif.	45	-.03**	
(5.28) MOS Aesth. (Comp.) & Global Ind. Rating	51	.01**	
(5.29) MOS Aesth. (Comp.) & Spr. Goodenough Rating of Ind.	27	.20**	
(5.30) MOS Aesth. (Comp.) & Spr. Socio. Rating	30	-.05*	
(5.31) MOS Aesth. (Comp.) & Spr. Socio. Choice #1	27	.20**	
(5.32) MOS Aesth. (Comp.) & Spr. Socio. Choice #5	26	.20**	
(5.33) MOS Aesth. (Comp.) & Creativity (Mem. Flu.)	23	.32*	
(5.34) MOS Aesth. (Comp.) & Creativity (Mem. Flex.)	23	.05*	
(5.35) MOS Aesth. (Comp.) & Creativity (Mem. Orig.)	23	.00*	
(5.36) MOS Aesth. (Comp.) & Creativity (Fig. Flu.)	30	.52*	
(5.37) MOS Aesth. (Comp.) & Creativity (Fig. Flex.)	30	.10*	
(5.38) MOS Aesth. (Comp.) & Creativity (Fig. Orig.)	30	.57*	
(5.39) MOS Aesth. (Comp.) & Creativity (Fig. Elab.)	30	.10*	
(5.40) MOS Aesth. (Comp.) & MEPS Conf. (Complex D)	30	.48*	< .01
(5.41) MOS Aesth. (Comp.) & MEPS Mat. (Complex D)	30	-.33*	
(5.42) MOS Aesth. (Comp.) & MEPS Agg. (Complex D)	30	.17*	
(5.43) MOS Aesth. (Comp.) & MEPS Inh. (Complex D)	30	-.28*	
(5.44) MOS Aesth. (Comp.) & MEPS Hygmot. (Complex D)	30	.24*	

	Comparison	N	r	p
	End of Fourth Grade			
(145)	MAT Reading (Wd. Knl.) & MCPS Conf. (Sample C)[15]	31	.36*	<.05
(146)	MAT Reading (Wd. Knl.) & MCPS Mot. (Sample C)	31	-.03*	
(147)	MAT Reading (Wd. Knl.) & MCPS Agg. (Sample C)	31	.09*	
(148)	MAT Reading (Wd. Knl.) & MCPS Inh. (Sample C)	31	-.20*	
(149)	MAT Reading (Wd. Knl.) & MCPS Hyper. (Sample C)	31	-.09*	
(150)	MAT Reading (Wd. Knl.) & Global Rating of Fam.	55	.33**	<.05
(151)	MAT Reading (Wd. Knl.) & Global Rating of Index Ch.	55	.47**	<.01
(152)	MAT Reading (Wd. Knl.) & Global Rating of Sibs.	47	.39**	<.01
(153)	MAT Reading (Wd. Knl.) & Mode of Commun.	55	.25**	<.10
(154)	MAT Reading (Wd. Knl.) & Liaison. & Atten. Skills	55	.38**	<.01
(155)	MAT Reading (Wd. Knl.) & Task Furth.	55	.32**	<.05
(156)	MAT Reading (Wd. Knl.) & Concept. Level	55	.36**	<.01
(157)	MAT Reading (Compr.) & MCPS Conf. (Sample C)	31	.30*	<.10
(158)	MAT Reading (Compr.) & MCPS Mot. (Sample C)	31	.10*	
(159)	MAT Reading (Compr.) & MCPS Agg. (Sample C)	31	-.09*	
(160)	MAT Reading (Compr.) & MCPS Inh. (Sample C)	31	-.05*	
(161)	MAT Reading (Compr.) & MCPS Hyper. (Sample C)	31	-.10*	
(162)	MAT Reading (Compr.) & Global Rating of Fam.	55	.07**	
(163)	MAT Reading (Compr.) & Global Rating of Index Ch.	55	.28**	<.05
(164)	MAT Reading (Compr.) & Global Rating of Sibs.	47	.12**	
(165)	MAT Reading (Compr.) & Mode of Commun.	55	-.03**	
(166)	MAT Reading (Compr.) & Liaison. & Atten. Skills	55	.13**	
(167)	MAT Reading (Compr.) & Task Furth.	55	.01**	

[15] It should be noted that scores for in Sample C were also for in Sample B (see pp. 57-62 for further description of these samples).

	Comparison	N	r	p
(168)	MAT Reading (Compr.) & Concept. Level	55	.14**	
(169)	Iowa Lang. & MCPS Conf. (Sample C)	15	.07*	
(170)	Iowa Lang. & MCPS Mat. (Sample C)	15	.53*	< .05
(171)	Iowa Lang. & MCPS Agg. (Sample C)	15	-.42*	
(172)	Iowa Lang. & MCPS Inh. (Sample C)	15	-.11*	
(173)	Iowa Lang. & MCPS Hyper. (Sample C)	15	-.45*	< .10
(174)	Iowa Lang. & Global Rating of Fam.	40	-.06**	
(175)	Iowa Lang. & Global Rating of Index Ch.	40	-.01**	
(176)	Iowa Lang. & Global Rating of Sibs.	35	.10**	
(177)	Iowa Lang. & Mode of Commun.	40	-.04**	
(178)	Iowa Lang. & Listen. & Atten. Skills	40	-.06**	
(179)	Iowa Lang. & Task Furth.	40	.09**	
(180)	Iowa Lang. & Concept. Level	40	-.07**	
(181)	Iowa Arith. & MCPS Conf. (Sample C)	14	.55*	< .05
(182)	Iowa Arith. & MCPS Mat. (Sample C)	14	.22*	
(183)	Iowa Arith. & MCPS Agg. (Sample C)	14	-.27*	
(184)	Iowa Arith. & MCPS Inh. (Sample C)	14	.12*	
(185)	Iowa Arith. & MCPS Hyper. (Sample C)	14	.01*	
(186)	Iowa Arith. & Global Rating of Fam.	41	-.08**	
(187)	Iowa Arith. & Global Rating of Index Ch.	41	.03**	
(188)	Iowa Arith. & Global Rating of Sibs.	36	.00**	
(189)	Iowa Arith. & Mode of Commun.	41	.02**	
(190)	Iowa Arith. & Listen. & Atten. Skills	41	-.02**	
(191)	Iowa Arith. & Task Furth.	41	-.00**	
(192)	Iowa Arith. & Concept. Level	41	.03**	

II Predictive Correlations

A. Prediction from Intelligence and Achievement Measures to Other Intelligence and Achievement Measures

	Comparison	N	r	p
	Prediction from End of Kindergarten			
(193)	S-B & L-T End of 2nd	94	.44	< .01
(194)	S-B & Gates End of 2nd	74	.43	< .01
(195)	S-B & S-B End of 3rd	74	.68	< .01
(196)	S-B & S-B Change Score	74	-.36	< .01
(197)	S-B & PPVT End of 3rd	75	.50	< .01
(198)	S-B & CMMS End of 3rd	75	.30	< .01
(199)	S-B & WISC Verbal End of 3rd	36	.66	< .01
(200)	S-B & WISC Perform. End of 3rd	36	.20	
(201)	S-B & WISC Full End of 3rd	36	.53	< .01
(202)	S-B & MAT Reading (Wd. Knl.) End of 3rd	81	.41*	< .01
(203)	S-B & MAT Reading (Compr.) End of 3rd	81	.47*	< .01
(204)	S-B & MAT Arith. (C. & P.) End of 3rd	86	.46*	< .01
(205)	S-B & MAT Arith. (Comp.) End of 3rd	86	.31*	< .01
(206)	S-B & MAT Reading (Wd. Knl.) End of 4th	73	.58*	< .01
(207)	S-B & MAT Reading (Compr.) End of 4th	73	.48*	< .01
(208)	S-B & ITBS End of 4th	31	.51	< .01
(209)	S-B & Iowa Lang. End of 4th	44	.39*	< .05
(210)	S-B & Iowa Arith. End of 4th	45	.21*	
(211)	S-B & MAT Reading (Wd. Knl.) End of 5th	48	.42*	< .01
(212)	S-B & MAT Reading (Compr.) End of 5th	48	.42*	< .01
(213)	PPVT & S-B End of 2nd	93	.34	< .01

	Comparison	N	r	p
(214)	PPVT & Gates end of 2nd	73	.39	$< .01$
(215)	PPVT & S-B End of 3rd	73	.48	$< .01$
(216)	PPVT & PPVT End of 3rd	74	.66	$< .01$
(217)	PPVT & PPVT Change Score	74	-.62	$< .01$
(218)	PPVT & CMMS End of 3rd	74	.13	
(219)	PPVT & WISC Verbal End of 3rd	35	.44	$< .01$
(220)	PPVT & WISC Perform. end of 3rd	35	.11	
(221)	PPVT & WISC Full End of 3rd	35	.33	$< .10$
(222)	PPVT & MAT Reading (Wd. Knl.) End of 3rd	80	23*	$< .05$
(223)	PPVT & MAT Reading (Compr.) End of 3rd	80	32*	$< .01$
(224)	PPVT & MAT Arith. (C. & P.) End of 3rd	85	33*	$< .01$
(225)	PPVT & MAT Arith. (Comp.) End of 3rd	85	23*	$< .05$
(226)	PPVT & MAT Reading (Wd. Knl.) End of 4th	72	48*	$< .01$
(227)	PPVT & MAT Reading (Compr.) End of 4th	72	42*	$< .01$
(228)	PPVT & ITPA End of 4th	31	52	$< .01$
(229)	PPVT & Iowa Lang. End of 4th	43	10*	
(230)	PPVT & Iowa Arith. End of 4th	44	19*	
(231)	PPVT & MAT Reading (Wd. Knl.) End of 5th	47	35*	$< .05$
(232)	PPVT & MAT Reading (Compr.) End of 5th	47	33*	$< .05$
(233)	CMMS & S-B End of 2nd	93	.29	$< .01$
(234)	CMMS & Gates End of 2nd	73	.18	
(235)	CMMS & S-B End of 3rd	73	.29	$< .10$
(236)	CMMS & PPVT End of 3rd	74	.17	
(237)	CMMS & CMMS End of 3rd	74	.38	$< .05$
(238)	CMMS & CMMS Change Score	74	-.37	$< .01$
(239)	CMMS & WISC Verbal End of 3rd	35	.37	

	Comparison	N	r	p
(240)	CMMS & WISC Perform. End of 3rd	35	.20	
(241)	CMMS & WISC Full End of 3rd	35	.22	
(242)	CMMS & MAT Reading (Wd. Knl.) End of 3rd	79	.15*	
(243)	CMMS & MAT Reading (Compr.) End of 3rd	79	.29*	$< .05$
(244)	CMMS & MAT Arith. (C. & P.) End of 3rd	84	.20*	$< .10$
(245)	CMMS & MAT Arith. (Comp.) End of 3rd	84	.28*	$< .05$
(246)	CMMS & MAT Reading (Wd. Knl.) End of 4th	71	.24*	$< .05$
(247)	CMMS & MAT Reading (Compr.) End of 4th	71	.09*	
(248)	CMMS & ITPA End of 4th	31	.08	
(249)	CMMS & Iowa Lang. End of 4th	43	.18*	
(250)	CMMS & Iowa Arith. End of 4th	44	.35*	$< .05$
(251)	CMMS & MAT Reading (Wd. Knl.) End of 5th	47	.34*	$< .05$
(252)	CMMS & MAT Reading (Compr.) End of 5th	47	.24*	
(253)	Reading Prog. & L-T End of 2nd	79	.42	$< .01$
(254)	Reading Prog. & Gates End of 2nd	61	.41	$< .01$
(255)	Reading Prog. & S-B End of 3rd	61	.38	$< .01$
(256)	Reading Prog. & PPVT End of 3rd	61	.43	$< .01$
(257)	Reading Prog. & CMMS End of 3rd	61	.18	
(258)	Reading Prog. & WISC Verbal End of 3rd	35	.54	$< .01$
(259)	Reading Prog. & WISC Perform. End of 3rd	35	.17	
(260)	Reading Prog. & WISC Full End of 3rd	35	.38	$< .05$
(261)	Reading Prog. & MAT Reading (Wd. Knl.) End of 3rd	68	.35*	$< .01$
(262)	Reading Prog. & MAT Reading (Compr.) End of 3rd	68	.47*	$< .01$
(263)	Reading Prog. & MAT Arith. (C. & P.) End of 3rd	72	.40*	$< .01$
(264)	Reading Prog. & MAT Arith. (Comp.) End of 3rd	72	.39*	$< .01$
(265)	Reading Prog. & MAT Reading (Wd. Knl.) End of 4th	62	.47*	$< .01$

	Comparison	N	r	p
(266)	Reading Prog. & MAT Reading (Compr.) End of 4th	62	.42*	.01
(267)	Reading Prog. & ITPA End of 4th	26	.56	.01
(268)	Reading Prog. & Iowa Lang. End of 4th	40	.28*	.10
(269)	Reading Prog. & Iowa Arith. End of 4th	40	.40*	.05
(270)	Reading Prog. & MAT Reading (Wd. Knl.) End of 5th	41	.40*	.01
(271)	Reading Prog. & MAT Reading (Compr.) End of 5th	41	.32*	.05

Prediction from the End of Second Grade

(272)	L-T & S-B End of 3rd	76	.58	$<.01$
(273)	L-T & PPVT End of 3rd	78	.42	$<.01$
(274)	L-T & CMMS End of 3rd	78	.31	$<.01$
(275)	L-T & WISC Verbal End of 3rd	35	.63	$<.01$
(276)	L-T & WISC Perform. End of 3rd	35	.51	$<.01$
(277)	L-T & WISC Full End of 3rd	35	.70	$<.01$
(278)	L-T & MAT Reading (Wd. Knl.) End of 3rd	84	.43*	$<.01$
(279)	L-T & MAT Reading (Compr.) End of 3rd	84	.36*	$<.01$
(280)	L-T & MAT Arith. (C. & P.) End of 3rd	88	.38*	$<.01$
(281)	L-T & MAT Arith. (Comp.) End of 3rd	88	.43*	$<.01$
(282)	L-T & MAT Reading (Wd. Knl.) End of 4th	75	.52*	$<.01$
(283)	L-T & MAT Reading (Compr.) End of 4th	75	.39*	$<.01$
(284)	L-T & ITPA End of 4th	31	.55	$<.01$
(285)	L-T & Iowa Lang. End of 4th	40	.19*	
(286)	L-T & Iowa Arith. End of 4th	40	.31*	$<.05$
(287)	L-T & MAT Reading (Wd. Knl.) End of 5th	50	.31*	$<.01$
(288)	L-T & MAT Reading (Compr.) End of 5th	50	.45*	$<.01$
(289)	Gates & S-B End of 3rd	75	.60	$<.01$

	Comparison	N	r	p
(290)	Gates & PPVT End of 3rd	77	.43	<.01
(291)	Gates & CMMS End of 3rd	77	.18	
(292)	Gates & WISC Verbal End of 3rd	35	.43	<.01
(293)	Gates & WISC Perform. End of 3rd	35	.32	<.10
(294)	Gates & WISC Full End of 3rd	35	.41	<.05
(295)	Gates & MAT Reading (Wd. Knl.) End of 3rd	71	.64*	<.01
(296)	Gates & MAT Reading (Compr.) End of 3rd	71	.58*	<.01
(297)	Gates & MAT Arith. (C. & P.) End of 3rd	72	.40*	<.01
(298)	Gates & MAT Arith. (Comp.) End of 3rd	72	.31*	<.01
(299)	Gates & MAT Reading (Wd. Knl.) End of 4th	62	.58*	<.01
(300)	Gates & MAT Reading (Compr.) End of 4th	62	.65*	<.01
(301)	Gates & PPVT End of 4th	31	.41	<.05
(302)	Gates & Iowa Lang. End of 4th	44	.57*	<.01
(303)	Gates & Iowa Lang. End of 4th	45	.39*	<.01
(304)	Gates & MAT Reading (Wd. Knl.) End of 5th	43	.56*	<.01
(305)	Gates & MAT Reading (Compr.) End of 5th	43	.49*	<.01

Prediction From the End of Third Grade

(306)	S-B & MAT Reading (Wd. Knl.) End of 4th	66	.45*	<.01
(307)	S-B & MAT Reading (Compr.) End of 4th	66	.47*	<.01
(308)	S-B & PPVT End of 4th	30	.48	<.01
(309)	S-B & Iowa Lang. End of 4th	47	.30*	<.05
(310)	S-B & Iowa Arith. End of 4th	46	.17*	
(311)	S-B & MAT Reading (Wd. Knl.) End of 5th	41	.39*	<.01
(312)	S-B & MAT Reading (Compr.) End of 5th	41	.40*	<.01
(313)	PPVT & MAT Reading (Wd. Knl.) End of 4th	30	.40*	<.01

	Comparison	N	r	p
(314)	PPVT & MAT Reading (Compr.) End of 4th	60	.47*	$<.01$
(315)	PPVT & ITPA End of 4th	31	.54	$<.01$
(316)	PPVT & Iowa Lang. End of 4th	48	.33*	$<.05$
(317)	PPVT & Iowa Arith. End of 4th	49	.17*	
(318)	PPVT & MAT Reading (Wd. Knl.) End of 5th	52	.36*	$<.01$
(319)	PPVT & MAT Reading (Compr.) End of 5th	52	.32*	$<.05$
(320)	CMMS & MAT Reading (Wd. Knl.) End of 4th	48	.23*	
(321)	CMMS & MAT Reading (Compr.) End of 4th	48	.23*	
(322)	CMMS & ITPA End of 4th	31	.38	$<.05$
(323)	CMMS & Iowa Lang. End of 4th	48	.27*	$<.10$
(324)	CMMS & Iowa Arith. End of 4th	49	.38*	$<.01$
(325)	CMMS & MAT Reading (Wd. Knl.) End of 5th	52	.36*	$<.01$
(326)	CMMS & MAT Reading (Compr.) End of 5th	52	.27*	$<.10$
(327)	WISC Verbal & MAT Reading (Wd. Knl.) End of 4th	45	.38*	$<.01$
(328)	WISC Verbal & MAT Reading (Compr.) End of 4th	45	.30*	$<.10$
(329)	WISC Verbal & Iowa Lang. End of 4th	26	.17*	
(330)	WISC Verbal & Iowa Arith. End of 4th	28	.23*	
(331)	WISC Verbal & MAT Reading (Wd. Knl.) End of 5th	29	.36*	$<.10$
(332)	WISC Verbal & MAT Reading (Compr.) End of 5th	29	.30*	$<.10$
(333)	WISC Perform. & MAT Reading (Wd. Knl.) End of 4th	45	.09*	
(334)	WISC Perform. & MAT Reading (Compr.) End of 4th	45	.11*	
(335)	WISC Perform. & Iowa Lang. End of 4th	26	.11*	
(336)	WISC Perform. & Iowa Arith. End of 4th	28	.24*	
(337)	WISC Perform. & MAT Reading (Wd. Knl.) End of 5th	29	.36*	$<.10$
(338)	WISC Perform. & MAT Reading (Compr.) End of 5th	29	.27*	
(339)	WISC Full & MAT Reading (Wd. Knl.) End of 4th	45	.41*	$<.05$

	Comparisons	R	θ	A
(3H0)	WSW Full & NW Reading (Omega$_2$) End of 9th	25	$_{0}$139°	
(3H1)	WSW Full & Lower Long$_2$ End of 9th	26	$_{0}$111°	
(3H2)	WSW Full & Lower Bat(th)$_2$ End of 9th	28	$_{0}$151°	
(3H3)	WSW Full & NW Reading (Int$_2$ Bat$_2$) End of 5th	24	$_{0}$159°	$\angle_{0}$(3)
(3H4)	WSW Full & NW Reading (Omega$_2$) End of 5th	24	$_{0}$159°	
(3H5)	NW Reading (Int$_2$ Bat$_2$) & NW Reading (Int$_1$ Bat$_1$) End of 9th	78	$_{0}$300°°	$\angle_{0}$(3)
(3H6)	NW Reading (Int$_1$ Bat$_2$) & NW Reading (Omega$_1$) End of 9th	77	$_{0}$159°°	$\angle_{0}$(3)
(3H7)	NW Reading (Int$_2$ Bat$_2$) & (SSW) End of 9th	30	$_{0}$58°	$\angle_{0}$(3)
(3H8)	NW Reading (Int$_2$ Bat$_2$) & Lower Long$_2$ End of 9th	50	$_{0}$80°°	$\angle_{0}$(3)
(3H9)	NW Reading (Int$_2$ Bat$_2$) & Lower Bat(th)$_2$ End of 9th	50	$_{0}$100°°	$\angle_{0}$(3)
(3I0)	NW Reading (Int$_2$ Bat$_2$) & NW Reading (Int$_1$ Bat$_1$) End of 5th	51	$_{0}$100°°	$\angle_{0}$(3)
(3I1)	NW Reading (Int$_2$ Bat$_2$) & NW Reading (Omega$_1$) End of 5th	51	$_{0}$159°°	$\angle_{0}$(3)
(3I2)	NW Reading (Omega$_1$) & NW Reading (Int$_1$ Bat$_1$) End of 5th	78	$_{0}$159°°	$\angle_{0}$(3)
(3I3)	NW Reading (Omega$_1$) & NW Reading (Omega$_1$) End of 5th	77	$_{0}$159°°	$\angle_{0}$(3)
(3I4)	NW Reading (Omega$_1$) & (SSW) End of 5th	30	$_{0}$59°	$\angle_{0}$(3)
(3I5)	NW Reading (Omega$_1$) & Lower Long$_2$ End of 5th	50	$_{0}$80°°	
(3I6)	NW Reading (Omega$_1$) & Lower Bat(th)$_2$ End of 5th	50	$_{0}$100°°	
(3I7)	NW Reading (Omega$_1$) & NW Reading (Int$_1$ Bat$_1$) End of 5th	51	$_{0}$100°°	$\angle_{0}$(3)
(3I8)	NW Reading (Omega$_1$) & NW Reading (Omega$_1$) End of 5th	51	$_{0}$159°°	$\angle_{0}$(3)

	Conjunctions			
(1959)	$\mathrm{WF}\ \mathrm{bw}(\mathrm{nh}_1, \{F_1 \Vdash F_2\}) \Vdash \mathrm{WF}\ \mathrm{Bonding}\ (\mathrm{hh}_1, \mathrm{bx}\mathrm{l}_1)$ End of nh			
(1960)	$\mathrm{WF}\ \mathrm{bw}(\mathrm{nh}_1, \{F_1 \Vdash F_2\}) \Vdash \mathrm{WF}\ \mathrm{Bonding}\ (\mathrm{Exogn}_1)$ End of nh			
(1961)	$\mathrm{WF}\ \mathrm{bw}(\mathrm{nh}_1, \{F_1 \Vdash F_2\}) \Vdash \mathrm{DW}$ End of nh			
(1962)	$\mathrm{WF}\ \mathrm{bw}(\mathrm{nh}_1, \{F_1 \Vdash F_2\}) \Vdash \mathrm{Atom}\ \mathrm{Symp}_1$ End of nh			
(1963)	$\mathrm{WF}\ \mathrm{bw}(\mathrm{nh}_1, \{F_1 \Vdash F_2\}) \Vdash \mathrm{Atom}\ \mathrm{bw}(\mathrm{nh}_1$ End of nh			
(1964)	$\mathrm{WF}\ \mathrm{bw}(\mathrm{nh}_1, \{F_1 \Vdash F_2\}) \Vdash \mathrm{WF}\ \mathrm{Bonding}\ (\mathrm{hh}_1, \mathrm{bx}\mathrm{l}_1)$ End of nh			
(1965)	$\mathrm{WF}\ \mathrm{bw}(\mathrm{nh}_1, \{F_1 \Vdash F_2\}) \Vdash \mathrm{WF}\ \mathrm{Bonding}\ (\mathrm{Exogn}_1)$ End of nh			
(1966)	$\mathrm{WF}\ \mathrm{bw}(\mathrm{nh}_1, \{\mathrm{Exog}_1\}) \Vdash \mathrm{WF}\ \mathrm{Bonding}\ (\mathrm{hh}_1, \mathrm{bx}\mathrm{l}_1)$ End of nh			
(1967)	$\mathrm{WF}\ \mathrm{bw}(\mathrm{nh}_1, \{\mathrm{Exog}_1\}) \Vdash \mathrm{WF}\ \mathrm{Bonding}\ (\mathrm{Exogn}_1)$ End of nh			
(1968)	$\mathrm{WF}\ \mathrm{bw}(\mathrm{nh}_1, \{\mathrm{Exog}_1\}) \Vdash \mathrm{DW}$ End of nh			
(1969)	$\mathrm{WF}\ \mathrm{bw}(\mathrm{nh}_1, \{\mathrm{Exog}_1\}) \Vdash \mathrm{Atom}\ \mathrm{Symp}_1$ End of nh			
(1970)	$\mathrm{WF}\ \mathrm{bw}(\mathrm{nh}_1, \{\mathrm{Exog}_1\}) \Vdash \mathrm{Atom}\ \mathrm{bw}(\mathrm{nh}_1$ End of nh			
(1971)	$\mathrm{WF}\ \mathrm{bw}(\mathrm{nh}_1, \{\mathrm{Exog}_1\}) \Vdash \mathrm{WF}\ \mathrm{Bonding}\ (\mathrm{hh}_1, \mathrm{bx}\mathrm{l}_1)$ End of nh			
(1972)	$\mathrm{WF}\ \mathrm{bw}(\mathrm{nh}_1, \{\mathrm{Exog}_1\}) \Vdash \mathrm{WF}\ \mathrm{Bonding}\ (\mathrm{Exogn}_1)$ End of nh			
	Restrictive Use, the Set of Fourth Level			
(1973)	$\mathrm{WF}\ \mathrm{Bonding}\ (\mathrm{hh}_1, \mathrm{bx}\mathrm{l}_1) \Vdash \mathrm{WF}\ \mathrm{Bonding}\ (\mathrm{hh}_1, \mathrm{bx}\mathrm{l}_1)$ End of nh			
(1974)	$\mathrm{WF}\ \mathrm{Bonding}\ (\mathrm{hh}_1, \mathrm{bx}\mathrm{l}_1) \Vdash \mathrm{WF}\ \mathrm{Bonding}\ (\mathrm{Exogn}_1)$ End of nh			

	Comparison	N	r	p
(375)	MAT Reading (Compr.) & MAT Reading (Wd. Knl.) End of 5th	51	.57**	<.01
(376)	MAT Reading (Compr.) & MAT Reading (Compr.) End of 5th	51	.51**	<.01
(377)	ITPA & MAT Reading (Wd. Knl.) End of 5th	21	.53*	<.05
(378)	ITPA & MAT Reading (Compr.) End of 5th	21	.50*	<.05
(379)	Iowa Lang. & MAT Reading (Wd. Knl.) End of 5th	40	.25**	
(380)	Iowa Lang. & MAT Reading (Compr.) End of 5th	40	.25**	
(381)	Iowa Arith. & MAT Reading (Wd. Knl.) End of 5th	40	.54**	<.01
(382)	Iowa Arith. & MAT Reading (Compr.) End of 5th	40	.34**	<.05

Prediction From Change Scores (End of Third - End of Kindergarten)

(383)	S-B Change & MAT Reading (Wd. Knl.) End of 4th	58	-.02*	
(384)	S-B Change & MAT Reading (Compr.) End of 4th	58	-.03*	
(385)	S-B Change & ITPA End of 4th	30	.33	<.10
(386)	S-B Change & Iowa Lang. End of 4th	42	-.09*	
(387)	S-B Change & Iowa Arith. End of 4th	43	-.02*	
(388)	S-B Change & MAT Reading (Wd. Knl.) End of 5th	46	.06*	
(389)	S-B Change & MAT Reading (Compr.) End of 5th	46	.13*	
(390)	PPVT Change & MAT Reading (Wd. Knl.) End of 4th	58	-.19*	
(391)	PPVT Change & MAT Reading (Compr.) End of 4th	58	-.09*	
(392)	PPVT Change & ITPA End of 4th	31	-.14	
(393)	PPVT Change & Iowa Lang. End of 4th	42	.09*	
(394)	PPVT Change & Iowa Arith. End of 4th	43	-.11*	
(395)	PPVT Change & MAT Reading (Wd. Knl.) End of 5th	46	-.04*	
(396)	PPVT Change & MAT Reading (Compr.) End of 5th	46	-.06*	

	Comparison	N	r	p
(397)	CMMS Change & MAT Reading (Wd. Knl.) End of 4th	58	.08*	
(398)	CMMS Change & MAT Reading (Compr.) End of 4th	58	.18	
(399)	CMMS Change & ITPA End of 4th	31	.35	$<.10$
(400)	CMMS Change & Iowa Lang. End of 4th	42	.12*	
(401)	CMMS Change & Iowa Arith. End of 4th	43	.07*	
(402)	CMMS Change & MAT Reading (Wd. Knl.) End of 5th	46	.17*	
(403)	CMMS Change & MAT Reading (Compr.) End of 5th	46	.12*	

B. Prediction From Intelligence and Achievement Measures to Socio-Personality Measures

Prediction From the End of Kindergarten

(404)	S-B & Ind. Chklst. Classif.	39	.17*	
(405)	S-B & Global Ind. Rating	38	-.07*	
(406)	S-B & Fall Teachers' Rating of Ind.	21	.26*	
(407)	S-B & Spr. Teachers' Rating of Ind.	19	.46*	$<.05$
(408)	S-B & Fall Socio. Rating	22	.23	
(409)	S-B & Spr. Socio. Rating	22	.37	$<.10$
(410)	S-B & Fall Socio. Choice #1	16	.31*	
(411)	S-B & Spr. Socio. Choice #1	21	.31*	
(412)	S-B & Fall Socio. Choice #5	17	.35*	
(413)	S-B & Spr. Socio. Choice #5	20	.37*	
(414)	S-B & Creativity (Ver. Flu.)	21	-.09	
(415)	S-B & Creativity (Ver. Flex.)	21	.01	
(416)	S-B & Creativity (Ver. Orig.)	21	.20	
(417)	S-B & Creativity (Fig. Flu.)	22	.07	
(418)	S-B & Creativity (Fig. Flex.)	22	-.09	

Comparison	N	r	p
(419) S-B & Creativity (Fig. Orig.)	22	-.08	
(420) S-B & Creativity (Fig. Elab.)	22	.04	
(421) S-B & MCPS Conf. (Sample D)	22	.33	
(422) S-B & MCPS Mat. (Sample D)	22	.07	
(423) S-B & MCPS Agg. (Sample D)	22	-.20	
(424) S-B & MCPS Inh. (Sample D)	22	-.03	
(425) S-B & MCPS Hyper. (Sample D)	22	-.25	
(426) S-B & MCPS Conf. (Sample C)	31	.46	$<.01$
(427) S-B & MCPS Mat. (Sample C)	31	.04	
(428) S-B & MCPS Agg. (Sample C)	31	-.31	
(429) S-B & MCPS Inh. (Sample C)	31	-.14	
(430) S-B & MCPS Hyper. (Sample C)	31	-.21	
(431) S-B & Global Rating of Fam.	66	.26*	$<.05$
(432) S-B & Global Rating of Index Ch.	66	.33*	$<.01$
(433) S-B & Global Rating of Sibs.	57	.42*	$<.01$
(434) S-B & Mode of Commun.	66	.30*	$<.05$
(435) S-B & Listen. & Atten. Skills	66	.25*	$<.05$
(436) S-B & Task Furth.	66	.25*	$<.05$
(437) S-B & Concept. Level	66	.27*	$<.05$
(438) PPVT & Ind. Chklst. Classif.	39	-.06*	
(439) PPVT & Global Ind. Rating	38	-.09*	
(440) PPVT & Fall Teachers' Rating of Ind.	21	.28*	
(441) PPVT & Spr. Teachers' Rating of Ind.	19	.39*	$<.10$
(442) PPVT & Fall Socio. Rating	22	.27	
(443) PPVT & Spr. Socio. Rating	22	.03	
(444) PPVT & Fall Socio. Choice #1	16	.20*	

	Comparison	N	r	p
(445)	PPVT & Spr. Socio. Choice #1	21	.19*	
(446)	PPVT & Fall Socio. Choice #5	17	.15*	
(447)	PPVT & Fall Socio. Choice #5	20	.14*	
(448)	PPVT & Creativity (Ver. Flu.)	21	-.13	
(449)	PPVT & Creativity (Ver. Flex.)	21	.22	
(450)	PPVT & Creativity (Ver. Orig.)	21	.08	
(451)	PPVT & Creativity (Fig. Flu.)	22	.39	$<.10$
(452)	PPVT & Creativity (Fig. Flex.)	22	.18	
(453)	PPVT & Creativity (Fig. Orig.)	22	.16	
(454)	PPVT & Creativity (Fig. Elab.)	22	.20	
(455)	PPVT & MCPS Conf. (Sample D)	22	.14	
(456)	PPVT & MCPS Mat. (Sample D)	22	.10	
(457)	PPVT & MCPS Agg. (Sample D)	22	-.07	
(458)	PPVT & MCPS Inh. (Sample D)	22	.00	
(459)	PPVT & MCPS Hyper. (Sample D)	22	-.01	
(460)	PPVT & MCPS Conf. (Sample C)	31	.55	$<.01$
(461)	PPVT & MCPS Mat. (Sample C)	31	-.16	
(462)	PPVT & MCPS Agg. (Sample C)	31	.18	
(463)	PPVT & MCPS Inh. (Sample C)	31	-.19	
(464)	PPVT & MCPS Hyper. (Sample C)	31	.03	
(465)	PPVT & Global Rating of Fam.	65	.35*	$<.01$
(466)	PPVT & Global Rating of Index Ch.	65	.37*	$<.01$
(467)	PPVT & Global Rating of Sibs.	56	.26*	$<.10$
(468)	PPVT & Mode of Commun.	65	.34*	$<.01$
(469)	PPVT & Listen. & Atten. Skills	65	.33*	$<.01$
(470)	PPVT & Task Furth.	65	.34*	$<.01$

	Comparison	N	r	p
(471)	PPVT & Concept. Level	65	.41*	$<.01$
(472)	CMMS & Ind. Chklst. Classif.	38	-.05*	
(473)	CMMS & Global Ind. Rating	38	-.05*	
(474)	CMMS & Fall Teachers' Rating of Ind.	20	.25*	
(475)	CMMS & Spr. Teachers' Rating of Ind.	19	.33*	
(476)	CMMS & Fall Socio. Rating	21	.13	
(477)	CMMS & Spr. Socio. Rating	21	.36	
(478)	CMMS & Fall Socio. Choice #1	15	.48*	$<.10$
(479)	CMMS & Spr. Socio. Choice #1	20	.47*	$<.05$
(480)	CMMS & Fall Socio. Choice #5	16	.53*	$<.05$
(481)	CMMS & Spr. Socio. Choice #5	19	.43*	$<.10$
(482)	CMMS & Creativity (Ver. Flu.)	20	.40	$<.10$
(483)	CMMS & Creativity (Ver. Flex.)	20	-.22	
(484)	CMMS & Creativity (Ver. Orig.)	20	..28	
(485)	CMMS & Creativity (Fig. Flu.)	21	.06	
(486)	CMMS & Creativity (Fig. Flex.)	21	-.20	
(487)	CMMS & Creativity (Fig. Orig.)	21	.20	
(488)	CMMS & Creativity (Fig. Elab.)	21	.20	
(489)	CMMS & MCPS Conf. (Sample D)	21	.31	
(490)	CMMS & MCPS Mat. (Sample D)	21	.07	
(491)	CMMS & MCPS Agg. (Sample D)	21	-.28	
(492)	CMMS & MCPS Inh. (Sample D)	21	.28	
(493)	CMMS & MCPS Hyper. (Sample D)	21	-.07	
(494)	CMMS & MCPS Conf. (Sample C)	31	.05	
(495)	CMMS & MCPS Mat. (Sample C)	31	-.08	
(496)	CMMS & MCPS Agg. (Sample C)	31	.06	

	Comparison	N	r	p
(497)	CMMS & MCPS Inh. (Sample C)	31	-.23	
(498)	CMMS & MCPS Hyper. (Sample C)	31	-.04	
(499)	CMMS & Global Rating of Fam.	65	-.07*	
(500)	CMMS & Global Rating of Index Ch.	65	-.14*	
(501)	CMMS & Global Rating of Sibs.	56	.12*	
(502)	CMMS & Mode of Commun.	65	.03*	
(503)	CMMS & Listen. & Atten. Skills	65	.02*	
(504)	CMMS & Task Furth.	65	.09*	
(505)	CMMS & Concept. Level	65	.04*	
(506)	Reading Prog. & Ind. Chklst. Classif.	28	.10*	
(507)	Reading Prog. & Global Ind. Rating	27	.03*	
(508)	Reading Prog. & Fall Teachers' Rating of Ind.	20	.39*	$<.10$
(509)	Reading Prog. & Spr. Teachers' Rating of Ind.	18	.70*	$<.01$
(510)	Reading Prog. & Fall Socio. Rating	.21	.41	$<.10$
(511)	Reading Prog. & Spr. Socio. Rating	21	.31	
(512)	Reading Prog. & Fall Socio. Choice #1	16	.51*	$<.05$
(513)	Reading Prog. & Spr. Socio. Choice #1	20	.49*	$<.05$
(514)	Reading Prog. & Fall Socio. Choice #5	16	.63*	$<.01$
(515)	Reading Prog. & Spr. Socio. Choice #5	19	.51*	$<.05$
(516)	Reading Prog. & Creativity (Ver. Flu.)	20	.05	
(517)	Reading Prog. & Creativity (Ver. Flex.)	20	-.03	
(518)	Reading Prog. & Creativity (Ver. Orig.)	20	.30	
(519)	Reading Prog. & Creativity (Fig. Flu.)	21	.11	
(520)	Reading Prog. & Creativity (Fig. Flex.)	21	-.07	
(521)	Reading Prog. & Creativity (Fig. Orig.)	21	.26	
(522)	Reading Prog. & Creativity (Fig. Elab.)	21	-.05	

	Comparison	N	r	p
(523)	Reading Prog. & MCPS Conf. (Sample D)	21	.38	<.10
(524)	Reading Prog. & MCPS Mat. (Sample D)	21	-.03	
(525)	Reading Prog. & MCPS Agg. (Sample D)	21	-.08	
(526)	Reading Prog. & MCPS Inh. (Sample D)	21	-.02	
(527)	Reading Prog. & MCPS Hyper. (Sample D)	21	-.19	
(528)	Reading Prog. & MCPS Conf. (Sample C)	26	.30	
(529)	Reading Prog. & MCPS Mat. (Sample C)	26	-.11	
(530)	Reading Prog. & MCPS Agg. (Sample C)	26	.21	
(531)	Reading Prog. & MCPS Inh. (Sample C)	26	-.13	
(532)	Reading Prog. & MCPS Hyper. (Sample C)	26	.10	
(533)	Reading Prog. & Global Rating of Fam.	60	.34*	<.01
(534)	Reading Prog. & Global Rating of Index Ch.	60	.25*	<.10
(535)	Reading Prog. & Global Rating of Sibs.	53	.40*	<.01
(536)	Reading Prog. & Mode of Commun.	60	.25*	<.10
(537)	Reading Prog. & Listen. & Atten. Skills	60	.40*	<.01
(538)	Reading Prog. & Task Furth.	60	.31*	<.05
(539)	Reading Prog. & Concept. Level	60	.29*	<.05
	Prediction From the End of Second Grade			
(540)	L-T & Ind. Chklst. Classif.	38	.04*	
(541)	L-T & Global Ind. Rating	41	.21*	
(542)	L-T & Fall Teachers' Rating of Ind.	20	.39*	<.10
(543)	L-T & Spr. Teachers' Rating of Ind.	19	.37*	
(544)	L-T & Fall Socio. Rating	21	.10	
(545)	L-T & Spr. Socio. Rating	21	.64	<.01
(546)	L-T & Fall Socio. Choice #1	16	.57*	<.05
(547)	L-T & Spr. Socio. Choice #1	20	.52*	<.05
(548)	L-T & Fall Socio. Choice #5	18	.68*	<.01

	Comparison	N	r	p
(549)	L-T & Spr. Socio. Choice #5	19	.37*	
(550)	L-T & Creativity (Ver. Flu.)	21	.11	
(551)	L-T & Creativity (Ver. Flex.)	21	-.20	
(552)	L-T & Creativity (Ver. Orig.)	21	-.06	
(553)	L-T & Creativity (Fig. Flu.)	21	-.07	
(554)	L-T & Creativity (Fig. Flex.)	21	-.15	
(555)	L-T & Creativity (Fig. Orig.)	21	.03	
(556)	L-T & Creativity (Fig. Elab.)	21	.18	
(557)	L-T & MCPS Conf. (Sample D)	21	.12	
(558)	L-T & MCPS Mat. (Sample D)	21	.25	
(559)	L-T & MCPS Agg. (Sample D)	21	-.22	
(560)	L-T & MCPS Inh. (Sample D)	21	.28	
(561)	L-T & MCPS Hyper. (Sample D)	21	-.17	
(562)	L-T & MCPS Conf. (Sample C)	31	.25	
(563)	L-T & MCPS Mat. (Sample C)	31	.03	
(564)	L-T & MCPS Agg. (Sample C)	31	-.05	
(565)	L-T & MCPS Inh. (Sample C)	31	.03	
(566)	L-T & MCPS Hyper. (Sample C)	31	.03	
(567)	L-T & Global Rating of Fam.	65	.26*	$<.05$
(568)	L-T & Global Rating of Index Ch.	65	.29*	$<.05$
(569)	L-T & Global Rating of Sibs.	56	.26*	$<.10$
(570)	L-T & Mode of Commun.	65	.16*	
(571)	L-T & Listen. & Atten. Skills	65	.30*	$<.05$
(572)	L-T & Task Furth.	65	.24*	$<.10$
(573)	L-T & Concept. Level	65	.13*	
(574)	Gates & Ind. Chklst. Classif.	26	.18*	

	Comparison	N	r	p
(575)	Gates & Global Rating of Ind.	28	.08*	
(576)	Gates & MCPS Conf. (Sample C)	31	.27	
(577)	Gates & MCPS Mat. (Sample C)	31	.12	
(578)	Gates & MCPS Agg. (Sample C)	31	-.15	
(579)	Gates & MCPS Inh. (Sample C)	31	.03	
(580)	Gates & MCPS Hyper. (Sample C)	31	-.02	
(581)	Gates & Global Rating of Fam.	65	.12*	
(582)	Gates & Global Rating of Index Ch.	65	.26*	$<.05$
(583)	Gates & Global Rating of Sibs.	56	.23*	$<.10$
(584)	Gates & Mode of Commun.	65	.09*	
(585)	Gates & Listen. & Atten. Skills	65	.16*	
(586)	Gates & Task Furth.	65	.12*	
(587)	Gates & Concept. Level	65	.10*	
	Prediction From the End of Third Grade			
(588)	S-B & MCPS Conf. (Sample C)	30	.44	$<.05$
(589)	S-B & MCPS Mat. (Sample C)	30	-.02	
(590)	S-B & MCPS Agg. (Sample C)	30	.05	
(591)	S-B & MCPS Inh. (Sample C)	30	-.30	
(592)	S-B & MCPS Hyper. (Sample C)	30	-.07	
(593)	S-B & Global Rating of Fam.	64	.17*	
(594)	S-B & Global Rating of Index Ch.	64	.14*	
(595)	S-B & Global Rating of Sibs.	55	.24*	$<.10$
(596)	S-B & Mode of Commun.	64	.28*	$<.05$
(597)	S-B & Listen. & Atten. Skills	64	.17*	
(598)	S-B & Task Furth.	64	.09*	

	Comparison	N	r	p
(599)	S-B & Concept. Level	64	.28*	$<.05$
(600)	PPVT & MCPS Conf. (Sample C)	31	.55	$<.01$
(601)	PPVT & MCPS Mat. (Sample C)	31	-.10	
(602)	PPVT & MCPS Agg. (Sample C)	31	.08	
(603)	PPVT & MCPS Inh. (Sample C)	31	-.17	
(604)	PPVT & MCPS Hyper. (Sample C)	31	.05	
(605)	PPVT & Global Rating of Fam.	65	.42*	$<.01$
(606)	PPVT & Global Rating of Index Ch.	65	.36*	$<.01$
(607)	PPVT & Global Rating of Sibs.	56	.56*	$<.01$
(608)	PPVT & Mode of Commun.	65	.28*	$<.05$
(609)	PPVT & Listen. & Atten. Skills	65	.29*	$<.05$
(610)	PPVT & Task Furth.	65	.37*	$<.01$
(611)	PPVT & Concept. Level	65	.40*	$<.01$
(612)	CMMS & MCPS Conf. (Sample C)	.31	.05	
(613)	CMMS & MCPS Mat. (Sample C)	31	.18	
(614)	CMMS & MCPS Agg. (Sample C)	31	-.28	
(615)	CMMS & MCPS Inh. (Sample C)	31	.09	
(616)	CMMS & MCPS Hyper. (Sample C)	31	-.01	
(617)	CMMS & Global Rating of Fam.	65	.21*	$<.10$
(618)	CMMS & Global Rating of Index Ch.	65	.15*	
(619)	CMMS & Global Rating of Sibs.	56	.26*	$<.10$
(620)	CMMS & Mode of Commun.	65	.13*	
(621)	CMMS & Listen. & Atten. Skills	65	.18*	
(622)	CMMS & Task Furth.	65	.13*	
(623)	CMMS & Concept. Level	65	.18*	
(624)	WISC Verbal & Global Rating of Fam.	36	.38*	$<.05$

	Comparison	N	r	p
(625)	WISC Verbal & Global Rating of Index Ch.	36	.32*	$<$.10
(626)	WISC Verbal & Global Rating of Sibs.	33	.26*	
(627)	WISC Verbal & Mode of Commun.	36	.40*	$<$.05
(628)	WISC Verbal & Listen. & Atten. Skills	36	.35*	$<$.05
(629)	WISC Verbal & Task Furth.	36	.40*	$<$.05
(630)	WISC Verbal & Concept. Level	36	.32*	$<$.10
(631)	WISC Perform. & Global Rating of Fam.	36	.19*	
(632)	WISC Perform. & Global Rating of Index Ch.	36	-.01*	
(633)	WISC Perform. & Global Rating of Sibs.	33	.03*	
(634)	WISC Perform. & Mode of Commun.	36	.23*	
(635)	WISC Perform. & Listen. & Atten. Skills	36	.12*	
(636)	WISC Perform. & Task Furth.	36	.20*	
(637)	WISC Perform. & Concept. Level	36	.03*	
(638)	WISC Full & Global Rating of Fam.	36	.33*	$<$.05
(639)	WISC Full & Global Rating of Index Ch.	36	.17*	
(640)	WISC Full & Global Rating of Sibs.	33	.17*	
(641)	WISC Full & Mode of Commun.	36	.38*	$<$.05
(642)	WISC Full & Listen. & Atten. Skills	36	.26*	
(643)	WISC Full & Task Furth.	36	.35*	$<$.05
(644)	WISC Full & Concept. Level	36	.20*	
(645)	MAT Reading (Wd. Knl.) & MCPS Conf. (Sample C)	30	.04*	
(646)	MAT Reading (Wd. Knl.) & MCPS Mat. (Sample C)	30	.07*	
(647)	MAT Reading (Wd. Knl.) & MCPS Agg. (Sample C)	30	-.04*	
(648)	MAT Reading (Wd. Knl.) & MCPS Inh. (Sample C)	30	.13*	
(649)	MAT Reading (Wd. Knl.) & MCPS Hyper. (Sample C)	30	.13*	
(650)	MAT Reading (Wd. Knl.) & Global Rating of Fam.	61	.10**	

	Comparison	N	r	p
(651)	MAT Reading (Wd. Knl.) & Global Rating of Index Ch.	61	.15**	
(652)	MAT Reading (Wd. Knl.) & Global Rating of Sibs.	54	.15**	
(653)	MAT Reading (Wd. Knl.) & Mode of Commun.	61	.11**	
(654)	MAT Reading (Wd. Knl.) & Listen. & Atten. Skills	61	.14**	
(655)	MAT Reading (Wd. Knl.) & Task Furth.	61	.08**	
(656)	MAT Reading (Wd. Knl.) & Concept. Level	61	.12**	
(657)	MAT Reading (Compr.) & MCPS Conf. (Sample C)	30	.21*	
(658)	MAT Reading (Compr.) & MCPS Mat. (Sample C)	30	-.20*	
(659)	MAT Reading (Compr.) & MCPS Agg. (Sample C)	30	.27*	
(660)	MAT Reading (Compr.) & MCPS Inh. (Sample C)	30	-.10	
(661)	MAT Reading (Compr.) & MCPS Hyper. (Sample C)	30	.10	
(662)	MAT Reading (Compr.) & Global Rating of Fam.	61	.31**	$<.05$
(663)	MAT Reading (Compr.) & Global Rating of Index Ch.	61	.28**	$<.05$
(664)	MAT Reading (Compr.) & Global Rating of Sibs.	.54	.41**	$<.01$
(665)	MAT Reading (Compr.) & Mode of Commun.	61	.28**	$<.05$
(666)	MAT Reading (Compr.) & Listen. & Atten. Skills	61	.36**	$<.01$
(667)	MAT Reading (Compr.) & Task Furth.	61	.22**	$<.10$
(668)	MAT Reading (Compr.) & Concept. Level	61	.26**	$<.05$
(669)	MAT Arith. (C. & P.) & MCPS Conf. (Sample C)	28	.53*	$<.01$
(670)	MAT Arith. (C. & P.) & MCPS Mat. (Sample C)	28	-.06*	
(67.)	MAT Arith. (C. & P.) & MCPS Agg. (Sample C)	28	-.06*	
(672)	MAT Arith. (C. & P.) & MCPS Inh. (Sample C)	28	-.34*	$<.10$
(673)	MAT Arith. (C. & P.) & MCPS Hyper. (Sample C)	28	-.21*	
(674)	MAT Arith. (C. & P.) & Global Rating of Fam.	60	.08**	
(675)	MAT Arith. (C. & P.) & Global Rating of Index Ch.	60	.20**	
(676)	MAT Arith. (C. & P.) & Global Rating of Sibs.	53	.23**	$<.10$

	Comparison	N	r	p
(677)	MAT Arith. (C. & P.) & Mode of Commun.	60	.26**	<.05
(678)	MAT Arith. (C. & P.) & Listen. & Atten. Skills	60	.08**	
(679)	MAT Arith. (C. & P.) & Task Furth.	60	.05**	
(680)	MAT Arith. (C. & P.) & Concept. Level	60	.20**	
(681)	MAT Arith. (Comp.) & MCPS Conf. (Sample C)	28	.05*	
(682)	MAT Arith. (Comp.) & MCPS Mat. (Sample C)	28	.12*	
(683)	MAT Arith. (Comp.) & MCPS Agg. (Sample C)	28	-.07*	
(684)	MAT Arith. (Comp.) & MCPS Inh. (Sample C)	28	-.01*	
(685)	MAT Arith. (Comp.) & MCPS Hyper. (Sample C)	28	-.03*	
(686)	MAT Arith. (Comp.) & Global Rating of Fam.	60	.17**	
(687)	MAT Arith. (Comp.) & Global Rating of Index Ch.	60	.23**	<.10
(688)	MAT Arith. (Comp.) & Global Rating of Sibs.	53	.32**	<.05
(689)	MAT Arith. (Comp.) & Mode of Commun.	60	.13**	
(690)	MAT Arith. (Comp.) & Listen. & Atten. Skills	60	.17**	
(691)	MAT Arith. (Comp.) & Task Furth.	60	.23**	<.10
(692)	MAT Arith. (Comp.) & Concept. Level	60	.23**	<.10

Prediction From Change Scores (End of Third - End of Kindergarten)

(693)	PPVT Change & Global Rating of Fam.	64	-.02*	
(694)	PPVT Change & Global Rating of Index Ch.	64	-.11*	
(695)	PPVT Change & Global Rating of Sibs.	55	.22*	
(696)	PPVT Change & Mode of Commun.	64	-.16*	
(697)	PPVT Change & Listen. & Atten. Skills	64	-.14*	
(698)	PPVT Change & Task Furth.	64	-.06*	
(699)	PPVT Change & Concept. Level	64	-.12*	
(700)	CMMS Change & MCPS Conf. (Sample C)	31	.02	

	Comparison	N	r	p
(701)	CMMS Change & MCPS Mat. (Sample C)	31	.24	
(702)	CMMS Change & MCPS Agg. (Sample C)	31	-.32	$< .10$
(703)	CMMS Change & MCPS Inh. (Sample C)	31	.22	
(704)	CMMS Change & MCPS Hyper. (Sample C)	31	.01	
(705)	CMMS Change & Global Rating of Fam.	64	.25*	$< .05$
(706)	CMMS Change & Global Rating of Index Ch.	64	.23*	$< .10$
(707)	CMMS Change & Global Rating of Sibs.	55	.18*	
(708)	CMMS Change & Mode of Commun.	64	.10*	
(709)	CMMS Change & Listen. & Atten. Skills	64	.19*	
(710)	CMMS Change & Task Furth.	64	.18*	
(711)	CMMS Change & Concept. Level	64	.20*	

C. Prediction From Socio-Personality Measures to Intelligence and Achievement Measures

Prediction From Third Grade

(712)	Ind. Chklst. Classif. & MAT Reading (Wd. Knl.) End of 4th	38	-.02**	
(713)	Ind. Chklst. Classif. & MAT Reading (Compr.) End of 4th	38	.13**	
(714)	Ind. Chklst. Classif. & ITPA	16	-.10*	
(715)	Ind. Chklst. Classif. & Iowa Lang.	12	.00**	
(716)	Ind. Chklst. Classif. & Iowa Arith.	12	-.17**	
(717)	Ind. Chklst. Classif. & MAT Reading (Wd. Knl.) End of 5th	16	.29**	
(718)	Ind. Chklst. Classif. & MAT Reading (Compr.) End of 5th	16	.58**	$< .05$

	Comparison	N	r	p
(719)	Global Ind. Rating & MAT Reading (Wd. Knl.) End of 4th	43	.10**	
(720)	Global Ind. Rating & MAT Reading (Compr.) End of 4th	42	.17**	
(721)	Global Ind. Rating & ITPA	17	.04*	
(722)	Global Ind. Rating & Iowa Lang.	16	-.08**	
(723)	Global Ind. Rating & Iowa Arith.	16	.13**	
(724)	Global Ind. Rating & MAT Reading (Wd. Knl.) End of 5th	19	.28**	
(725)	Global Ind. Rating & MAT Reading (Compr.) End of 5th	19	.52**	$<.05$
(726)	Fall Teachers' Rating of Ind. & MAT Reading (Wd. Knl.) End of 4th	22	.20**	
(727)	Fall Teachers' Rating of Ind. & MAT Reading (Compr.) End of 4th	21	.36**	
(728)	Spr. Teachers' Rating of Ind. & MAT Reading (Wd. Knl.) End of 4th	21	.39**	$<.05$
(729)	Spr. Teachers' Rating of Ind. & MAT Reading (Compr.) End of 4th	20	.58**	$<.01$
(730)	Fall Socio. Rating & MAT Reading (Wd. Knl.) End of 4th	23	.52*	$<.05$
(731)	Fall Socio. Rating & MAT Reading (Compr.) End of 4th	22	.50*	$<.05$
(732)	Spr. Socio. Rating & MAT Reading (Wd. Knl.) End of 4th	23	.25*	
(733)	Spr. Socio. Rating & MAT Reading (Compr.) End of 4th	22	.31*	
(734)	Fall Socio. Choice #1 & MAT Reading (Wd. Knl.) End of 4th	18	.55**	$<.05$

	Comparison	N	r	p
(735)	Fall Socio. Choice #1 & MAT Reading (Compr.) End of 4th	17	.51**	< .05
(736)	Spr. Socio. Choice #1 & MAT Reading (Wd. Knl.) End of 4th	20	.41**	< .10
(737)	Spr. Socio. Choice #1 & MAT Reading (Compr.) End of 4th	20	.30**	
(738)	Fall Socio. Choice #5 & MAT Reading (Wd. Knl.) End of 4th	20	.58**	< .01
(739)	Fall Socio. Choice #5 & MAT Reading (Compr.) End of 4th	19	.53**	< .05
(740)	Spr. Socio. Choice #5 & MAT Reading (Wd. Knl.) End of 4th	21	.42**	< .10
(741)	Spr. Socio. Choice #5 & MAT Reading (Compr.) End of 4th	20	.61**	< .01
(742)	Creativity (Ver. Flu.) & MAT Reading (Wd. Knl.) End of 4th	22	.00*	
(743)	Creativity (Ver. Flu.) & MAT Reading (Compr.) End of 4th	21	.14*	
(744)	Creativity (Ver. Flex.) & MAT Reading (Wd. Knl.) End of 4th	22	-.06*	
(745)	Creativity (Ver. Flex.) & MAT Reading (Compr.) End of 4th	21	-.19*	
(746)	Creativity (Ver. Orig.) & MAT Reading (Wd. Knl.) End of 4th	22	.13*	
(747)	Creativity (Ver. Orig.) & MAT Reading (Compr.) End of 4th	21	-.13*	

	Comparison	N	r	p
(748)	Creativity (Fig. Flu.) & MAT Reading (Wd. Knl.)			
	End of 4th	23	.07*	
(749)	Creativity (Fig. Flu.) & MAT Reading (Compr.)			
	End of 4th	22	.11*	
(750)	Creativity (Fig. Flex.) & MAT Reading (Wd. Knl.)			
	End of 4th	23	-.05*	
(751)	Creativity (Fig. Flex.) & MAT Reading (Compr.)			
	End of 4th	22	.33*	
(752)	Creativity (Fig. Orig.) & MAT Reading (Wd. Knl.)			
	End of 4th	23	-.04*	
(753)	Creativity (Fig. Orig.) & MAT Reading (Compr.)			
	End of 4th	22	.29*	
(754)	Creativity (Fig. Elab.) & MAT Reading (Wd. Knl.)			
	End of 4th	23	.25*	
(755)	Creativity (Fig. Elab.) & MAT Reading (Compr.)			
	End of 4th	22	.03*	
(756)	MCPS Conf. (Sample D) & MAT Reading (Wd. Knl.)			
	End of 4th	23	.27*	
(757)	MCPS Conf. (Sample D) & MAT Reading (Compr.)			
	End of 4th	22	.37*	$<.10$
(758)	MCPS Mat. (Sample D) & MAT Reading (Wd. Knl.)			
	End of 4th	23	.03*	
(759)	MCPS Mat. (Sample D) & MAT Reading (Compr.)			
	End of 4th	22	.04*	
(760)	MCPS Agg. (Sample D) & MAT Reading (Wd. Knl.)			
	End of 4th	23	-.04*	

	Comparison	N	r	p
(761)	MCPS Agg. (Sample D) & MAT Reading (Compr.)			
	End of 4th	22	-.08*	
(762)	MCPS Inh. (Sample D) & MAT Reading (Wd. Knl.)			
	End of 4th	23	-.17*	
(763)	MCPS Inh. (Sample D) & MAT Reading (Compr.)			
	End of 4th	22	-.15*	
(764)	MCPS Hyper. (Sample D) & MAT Reading (Wd. Knl.)			
	End of 4th	23	.05*	
(765)	MCPS Hyper. (Sample D) & MAT Reading (Compr.)			
	End of 4th	22	-.19*	

Prediction From the End of Fourth Grade

(766)	MCPS Conf. (Sample C) & MAT Reading (Wd. Knl.)			
	End of 5th	21	.11*	
(767)	MCPS Conf. (Sample C) & MAT Reading (Compr.)			
	End of 5th	21	.22*	
(768)	MCPS Mat. (Sample C) & MAT Reading (Wd. Knl.)			
	End of 5th	21	.17*	
(769)	MCPS Mat. (Sample C) & MAT Reading (Compr.)			
	End of 5th	21	.10*	
(770)	MCPS Agg. (Sample C) & MAT Reading (Wd. Knl.)			
	End of 5th	21	.05*	
(771)	MCPS Agg. (Sample C) & MAT Reading (Compr.)			
	End of 5th	21	.05*	
(772)	MCPS Inh. (Sample C) & MAT Reading (Wd. Knl.)			
	End of 5th	21	-.26*	

	Comparison	N	r	p
(773)	MCPS Inh. (Sample C) & MAT Reading (Compr.)			
	End of 5th	21	-.31*	
(774)	MCPS Hyper. (Sample C) & MAT Reading (Wd. Knl.)			
	End of 5th	21	-.04*	
(775)	MCPS Hyper. (Sample C) & MAT Reading (Compr.)			
	End of 5th	21	-.05*	
(776)	Global Rating of Fam. & MAT Reading (Wd. Knl.)			
	End of 5th	44	.15**	
(777)	Global Rating of Fam. & MAT Reading (Compr.)			
	End of 5th	44	.33**	$<.05$
(778)	Global Rating of Index Ch. & MAT Reading (Wd. Knl.)			
	End of 5th	44	.09**	
(779)	Global Rating of Index Ch. & MAT Reading (Compr.)			
	End of 5th	44	.26**	$<.10$
(780)	Global Rating of Sibs. & MAT Reading (Wd. Knl.)			
	End of 5th	39	.30**	$<.10$
(781)	Global Rating of Sibs. & MAT Reading (Compr.)			
	End of 5th	39	.30**	$<.10$
(782)	Mode of Commun. & MAT Reading (Wd. Knl.) End of 5th	44	.12**	
(783)	Mode of Commun. & MAT Reading (Compr.) End of 5th	44	.25**	
(784)	Listen. & Atten. Skills & MAT Reading (Wd. Knl.)			
	End of 5th	44	.10**	
(785)	Listen. & Atten. Skills & MAT Reading (Compr.)			
	End of 5th	44	.30**	$<.05$
(786)	Task Furth. & MAT Reading (Wd. Knl.) End of 5th	44	.04**	
(787)	Task Furth. & MAT Reading (Compr.) End of 5th	44	.18**	

	Comparison	N	r	p
(788)	Concept. Level & MAT Reading (Wd. Knl.) End of 5th	44	.08**	
(789)	Concept. Level & MAT Reading (Compr.) End of 5th	44	.21**	

D. Prediction From Socio-Personality Measures to Other Socio-Personality Measures

(790)	Ind. Chklst. Classif. & MCPS Conf. (Sample C)	16	-.02*	
(791)	Ind. Chklst. Classif. & MCPS Mat. (Sample C)	16	.17*	
(792)	Ind. Chklst. Classif. & MCPS Agg. (Sample C)	16	-.30*	
(793)	Ind. Chklst. Classif. & MCPS Inh. (Sample C)	16	.43*	$<.10$
(794)	Ind. Chklst. Classif. & MCPS Hyper. (Sample C)	16	.04*	
(795)	Ind. Chklst. Classif. & Global Rating of Fam.	15	.22**	
(796)	Ind. Chklst. Classif. & Global Rating of Index Ch.	15	.34**	
(797)	Ind. Chklst. Classif. & Global Rating of Sibs.	11	.10**	
(798)	Ind. Chklst. Classif. & Mode of Commun.	15	-.04**	
(799)	Ind. Chklst. Classif. & Listen. & Atten. Skills	15	.22**	
(800)	Ind. Chklst. Classif. & Task Furth.	15	.34**	
(801)	Ind. Chklst. Classif. & Concept. Level	15	.20**	
(802)	Global Ind. Rating & MCPS Conf. (Sample C)	17	-.01*	
(803)	Global Ind. Rating & MCPS Mat. (Sample C)	17	-.08*	
(804)	Global Ind. Rating & MCPS Agg. (Sample C)	17	-.29*	
(805)	Global Ind. Rating & MCPS Inh. (Sample C)	17	.45*	$<.10$
(806)	Global Ind. Rating & MCPS Hyper. (Sample C)	17	.34*	
(807)	Global Ind. Rating & Global Rating of Fam.	16	.23**	
(808)	Global Ind. Rating & Global Rating of Index Ch.	16	.15**	
(809)	Global Ind. Rating & Global Rating of Sibs.	11	-.04**	
(810)	Global Ind. Rating & Mode of Commun.	16	.09**	

	Comparison	N	r	p
(811)	Global Ind. Rating & Listen. & Atten. Skills	16	.23**	
(812)	Global Ind. Rating & Task Furth.	16	.07**	
(813)	Global Ind. Rating & Concept. Level	16	.07**	

Chapter 6

Summary of Findings

The present chapter pulls together the significant findings as presented in Chapters 3-5.[16] The interview data will be discussed separately from the correlational (achievement-oriented) material.

The Interview (See Chapters 3 and 4)

Combined Interview Data, Forms I and II, vs. Family Ratings and High-Low Status

Demographic data. Parental figures living in the household was not related to family ratings or high-low status, except for one trend: when father was present, a greater number of families than expected was rated high in task furtherance, while in those situations in which only a mother figure lived in the household, a greater number of families than expected was rated low in task furtherance. A trend was also found for index children with no older siblings to be rated higher in cognitive style than those index children who had three or more older siblings.

Crowdedness and housing. Many significant findings were present here. For all of these findings, the direction of relationship was consistent: higher ratings of cognitive style (specifically, global ratings of family, ratings of listening and attentional skills, and ratings of task furtherance) were associated with ratings of high or excellent of house interiors. Trends appeared in the same direction for global ratings of the index child and global ratings of the siblings in the interview to be positively associated with higher ratings of house interiors.

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[16] Probability levels of .05 or better and trends ($p < .10 > .05$) only will be discussed.

Family's origins and physical mobility. No significant findings.

Employment pattern of mother. No significant findings.

Accuracy of mother's schooling estimates for children. When mother's estimates were accurate, family ratings of cognitive style were significantly higher.

Last grade mother completed. A trend was found for families rated high in mode of communication to be those in which the mothers had received a greater amount of education.

Location of mother's schooling. No significant findings.

Does mother belong to clubs or groups. Two significant findings appeared indicating that greater participation of the mother is associated with higher ratings of the index child in the interview and of the conceptual style of the family as shown in the interview.

Does mother vote. A trend indicated that there was a greater tendency than expected for the children of frequently voting mothers to achieve greater gains on the Binet, and vice-versa.

Do children belong to clubs or groups. No significant findings.

Ratings of the stability of the family's eating arrangements. Only one significant finding emerged: those families rated as being stable in eating arrangements had a greater number of index children than expected who achieved high gains on the Binet, and vice-versa.

Does index child talk to adults. One significant finding emerged: index children who indicated that they did talk to adults tended to receive higher global ratings in the interview than those who did not.

Do children ask mother a lot of questions (children's response). A trend only appeared for this item: index children who indicated that their siblings asked the mother a lot of questions tended to come from

families in which the siblings were rated high in cognitive style.

Does mother like to be asked questions--children's assessment. No significant findings.

Does mother like to be asked questions--mother's response. A significant finding (global ratings of index child in interview) and two trends consistently indicated that when the mother indicated that she liked having the children ask her questions, a greater number of cases than expected was rated high in cognitive style (trends were for global ratings of the family and for task furtherance).

Why mother likes to be asked questions. No significant findings.

Does it bother mother if children talk when she's working around the house--children's assessment. No significant findings.

Does it bother mother if children talk when she's shopping--children's assessment. No significant findings.

Does anyone ever read to the children. No significant findings.

What kinds of books does the index child read. No significant findings.

Does anyone tell stories to the children. No significant findings.

Parent's knowledge of activities and whereabouts of children. (After-school activities of index child, of siblings, of children's friends.) Only one trend appeared: greater gains on the Binet (index child) tended to be associated with the mother's clear recollection of children's activities.

Does mother ask children to be home at any particular time in the evening. No significant findings.

Do children have stable role assignments. No significant findings.

Why does mother feel that family members should be responsible for

doing different things around the house. No significant findings.

Does index child remember anything he/she did that mother was proud of. Two trends emerged. When the index child answered no, there was a tendency for a greater number of cases to be rated low in listening and attentional skills and for the index child to be rated low in cognitive style in the interview.

How do children know when their mother is proud. One trend appeared: a greater number of families tended to be rated higher in conceptual level when verbal, rather than nonverbal expression on the part of the mother was noted.

How do children know when their mother is angry. No significant findings.

What does mother do when children have done something she approves of--mother's response. No significant findings.

What are mother's feelings when she has to punish her children. Two trends emerged: when the mother's response clearly differentiated discipline as a factor, her family tended to be rated higher in listening and attentional skills and in task furtherance.

Combined Interview Data, Forms I and II: Intra-Item Comparisons

Of the 30 intra-item comparisons performed, only one significant finding and one trend ($p < .10 > .05$) emerged--disappointing findings generally. The significant finding indicated that as family size increases there is a greater likelihood that someone in the family will read to the children. The trend suggested that frequency of mother's voting behavior and years of education were positively related. Note that the 30 comparisons were generally arbitrary and non-hypothesis-testing in that the explorations involved a search for possible relationships of items

within the interview itself without strong a priori expectations or hypotheses. It is not surprising, thus, that so few numbers of positive findings emerged.

Combined Interview Data, Indices

Of the indices constructed (and these were compared to various family ratings and the high-low status of the index child)--Mother's Activity Level, Mother's Conceptual Level, Mother's Verbal vs. Nonverbal Orientation, Stability Index, Verbal Encouragement Index, Mother's Knowledge of Children's Activities, and Consistency of Occupational Aspirations--only one positive finding emerged, and this was only a trend ($p < .10 > .05$); families scoring high on the Verbal Encouragement Index tended to produce index children rated high on the global rating, while families receiving low index scores produced index children rated low on the global rating.

Form II Only--Selected Interview Items vs. MCPS and ITPA Scores

Missouri Children's Picture Series. Scores on the MCPS were divided into high or low groups at the median of the distribution of scores for each scale and cross-tabulations were run with eleven selected interview items. Some interesting positive findings emerged:

(1) MCPS Conformity. Index children who talk to adults were rated higher in Conformity than children who do not talk to adults (significant finding); families in which the children say that the mother gives verbal expression to her anger contain index children who scored higher in Conformity (significant finding). Two trends also appeared ($p < .10 > .05$): when a mother figure only was present, the index child tended to receive a high Conformity score; and among mothers who had 0-9 years of schooling, their index children tended to be rated high in

Conformity.

(2) MCPS Maturity. No significant findings.

(3) MCPS Aggressivity. One highly significant result emerged: ratings of very stable eating arrangements were found in families in which the index child scored high on Aggressivity, while ratings of moderately or very unstable eating arrangements were made in families in which the index child scored low on this scale.

(4) MCPS Inhibition. No significant findings.

(5) MCPS Hyperactivity. No significant findings.

Illinois Test of Psycholinguistic Abilities. Cut-off points for these scores were taken at the median of the distribution of composite (or total) scores for this instrument, and cross-tabulations were run with seven selected interview items, yielding no significant findings.

Correlational Analysis (See Chapter 5)

Correlations of Concurrent Measures: Intelligence and/or Achievement Measures vs. Concurrent Intelligence and Achievement Measures

As expected, measures of intelligence and achievement intercorrelate positively and significantly at all grade levels for almost all measures. That is, there is good evidence of concurrent validity among the measures employed. The few exceptions should be noted: at the end of Kindergarten, CMMS vs. PPVT and Reading Prognosis; at the end of the third grade, WISC Verbal IQ vs. CMMS and MAT Arithmetic (Comp.) and WISC Performance IQ vs. PPVT; and at the end of fourth grade, Iowa Tests of Basic Skills--both Arithmetic and Language subtests--vs. the ITPA.

Note that the relationships between the intelligence measures, taken concurrently, remain fairly constant across testing periods. For example,

the correlations between S-B and both PPVT and CMMS do not differ remarkably at the end of Kindergarten and third grade. In the case of the relationship between the PPVT and the CMMS, however, the correlation increases (from r=.12, to r=.40) to a significant value at the third grade level from the Kindergarten level.

Generally, it seems that the degree of relationship tends to be stronger within each content area, that is, intelligence or achievement, than across areas. For example, the range in reported correlation coefficients among intelligence measures is .18 to .85, at the third grade level, with most correlations falling at or above a level of r=.35. Strongest among these relationships are the intercorrelations of the S-B and WISC Verbal and Full Scale scores, as well as those between the WISC Verbal and Performance measures and the WISC Full Scale measure. Across areas, that is, between intelligence and achievement measures, the range in coefficients is .28 to .61. In this case, slightly better than half of the findings reach a level of r=.35.

Of further interest is the degree of relationship among achievement measures which tends to be, in all cases, above r=.40. The range of coefficients for these measures is .41 to .64. As might be expected, the strongest relationships which emerge within this area are those involving subtests for a given instrument.

None of the change score measures (see p. 109) appears to be significantly intercorrelated. Only the relationship between the PPVT and CMMS change scores approaches significance ($p < .10$). Change scores of course are fairly unreliable measures, reducing the possibilities for significant findings. The lack of significant findings here might also be expected in the light of the psychometric characteristics, that is,

stability, built into intelligence (IQ) measures themselves. The major reason for employing S-B IQ scores in the present analysis, rather than a more variable measure such as Mental Age scores (MA) was based on the need to explore stable measures of intelligence at fixed points in time, in order to specifically relate them to other achievement measures and socio-personality measures.

Concurrent Measures: Intelligence and Achievement Measures vs. Socio-Personality Measures

Intelligence measures do not correlate significantly with socio-personality measures. It should be noted, however, that only six of the one hundred and twenty-six comparisons involve intelligence measures, and that of these six, five, although not significant, are in the expected positive direction.

A number of relationships approaching or reaching significance are found among measures of Independence and the Reading and Arithmetic subtests of the Metropolitan Achievement Tests. Without exception, these relationships are positive, that is, more independent behavior is consistently correlated with higher achievement. The Teachers' Rating of Independence (only the Spring ratings are included for these concurrent correlations) is more highly related to achievement than either of the other two measures of Independence. In fact, there are no significant relationships involving the Independence Checklist Classification, and only one significant relationship between the Global Ratings of Independence and achievement. These results suggest two possible interpretations in regard to ratings of Independence made by teachers: ratings made by a child's teacher may be a more valid assessment of the child's independent behavior than are classifications made by observers; or, the teacher

ratings may, themselves, be a function of achievement in that higher achieving children are perceived as "more independent" by their teachers.

The data also support the contention that higher achieving children will be better liked by their classmates. Both Sociometric Choice items (with Spring measures only being used) correlate with reading and arithmetic achievement; however, no significant relationships are found for the Spring sociometric rating and achievement.

A trend is apparent for a relationship between Verbal Creativity and achievement such that the more creative children are also the higher achievers. Two of the verbal measures, Fluency and Originality, correlate with three of the MAT subtests. It is interesting that these verbal measures correlate more strongly with the Arithmetic than the Reading subtests of the MAT, although these differences are not great.

The Conformity subscale of the MCPS is consistently and positively correlated with both third and fourth grade achievement measures. Since the third and fourth grade MCPS scores are taken from two different samples of children, these findings support the reliability of a relationship between between greater MCPS Conformity and higher achievement. Interesting but not consistent relationships are found for other scales of the MCPS and achievement. The MCPS Maturity subscale correlates in an unexpected direction with MAT Arithmetic Concepts and Problems in that higher achieving children are less mature. An expected positive correlation, however, is found between Maturity and the Iowa Language subtest. Finally, negative relationships are found between MCPS Inhibition and Hyperactivity and, respectively, MAT Arithmetic Concepts and Problems, and Iowa Language subtest.

Various family interview ratings show expected positive relationships

with measures of achievement. It might be noted that these correlations are considerably higher with MAT Reading Word Knowledge than with MAT Reading Comprehension.

Predictive Correlations: Intelligence and Achievement Measures to Other Intelligence and Achievement Measures

Generally, intelligence and achievement predictors at each respective grade level relate positively and significantly with later criterion measures of intelligence and achievement, providing supporting evidence of the predictive validity of the instruments employed in the present study. A few exceptions appear for Kindergarten-level intelligence measures in predicting later (third grade) intelligence criteria. None of the early measures of intelligence (S-B, PPVT, CMMS) relate to third-grade WISC Performance scores. Further, the CMMS does not predict WISC Verbal or Full Scale scores, nor third-grade PPVT scores, nor some of the later achievement measures. Finally, the PPVT does not predict third-grade CMMS scores.

A successful achievement-type "predictor" administered at the end of Kindergarten is the Reading Prognosis Test. As a predictor of later intellectual ability, it relates to all measures except the third-grade CMMS and WISC Performance measures. The Reading Prognosis Test relates positively and significantly to all later (second, third, fourth, and fifth grade) measures of achievement. (Note the relationship between the Reading Prognosis Test and Iowa Language approaches significance, $p < .10$.)

A special note should be made here regarding the relationship of initial measures of intelligence at the end of Kindergarten and change scores involving these measures. All three of the relationships tested

(S-B, PPVT, and CMMS) relate negatively and significantly to initial level of intelligence. These results undoubtedly reflect the tendency for a regression toward the mean in that the larger gains in intelligence occur with Ss who are lower in initial level for that specific instrument, and conversely, smaller gains occur with Ss who are initially higher.

The only predictors from the second-grade level are the L-T and the Gates measures. The L-T (an intelligence measure) correlates positively and significantly with all later intelligence and achievement measures with one exception, the fourth-grade Iowa Language subtest. Note, the L-T measure relates highly with all the third-grade WISC scores, unlike earlier (Kindergarten) predictors which fail to predict WISC performance. The Gates measure, also with only one exception, is significantly and positively related to all achievement and intelligence measures.

There is, generally, a significantly high degree of correlation between intelligence measure predictors at the third-grade level and achievement criteria (fourth- and fifth-grade measures), with several exceptions: intelligence measures do not generally relate to several Iowa Test scores. In addition, a few third-grade intelligence measures do not relate to later MAT measures. Overall, intelligence test predictors which are closer in time to their achievement criteria tend to relate to these criteria to the same extent as earlier (Kindergarten) predictors.

Regarding the prediction of achievement based on third-grade achievement measures, all measures relate to each other with only two exceptions: third-grade MAT Reading Comprehension scores and Iowa subtest scores for Language and Arithmetic.

For end of fourth grade level predictors, we are dealing only with

achievement measures and in predicting fifth grade achievement performance. Of the ten relationships reported, only two are nonsignificant. Iowa Language scores fail to predict MAT Reading Word Knowledge and Comprehension scores at the end of the fifth grade level.

No significant relationships emerge between the various change score measures (intelligence) and later achievement performance. There are, however, two exceptions when positive trends ($p < .10$) are indicated: S-B and CMMS change scores and ITPA performance at the end of fourth grade.

Predictive Correlations: Intelligence and Achievement Measures to Socio-Personality Measures

Many significant predictions from intelligence and achievement measures to socio-personality measures are found at all grade levels (end of Kindergarten, end of second grade, and end of third grade) and from change scores.

The data reveal consistent positive predictions from intelligence measures to the Family Interview Rating scales. In all cases, these correlations indicate that a child's status on an earlier intelligence measure can predict the ratings given his family in the later interview. Scores on the Stanford-Binet and the PPVT show similar patterns of high predictive ability from both the end of Kindergarten and the end of third grade. The other intelligence measure taken at both the end of Kindergarten and the end of third, the CMMS, does not predict Family Interview Ratings from the end of Kindergarter., but does so for the global ratings of family and siblings from the end of third grade (in both instances, $p < .10$). In addition, change scores on the CMMS successfully predict ratings on two of the scales, global rating of the family and of the

index child in the interview.

The remaining Intelligence measures are equally good predictors. The Lorge-Thorndike IQ score (end of second grade) and the WISC Verbal and Full Scale IQ (at the end of third grade) all have significant predictive correlations with Family Ratings. The failure of WISC Performance scores to predict Family Interview Ratings is, of course, not surprising, considering the verbal orientation of our scales.

Many achievement test scores at different grade levels are also successful predictors of later socio-personality scores. Reading Prognosis Test scores at the end of Kindergarten predict high ratings on all Family Interview rating scales. In addition, the second grade Gates Vocabulary Test and three of the third grade MAT subtests correlate highly with Family Ratings. Among the MAT tests, MAT Reading Comprehension is successful in predicting ratings on all of the scales, while the two MAT Arithmetic subtests show predictions in a number of significant and near significant correlations. It is somewhat surprising that MAT Reading Word Knowledge does not relate to any of the Family Interview Ratings, since at the fourth grade level this subtest correlates with each of the family scales, while Reading Comprehension correlates with only one (see one of the preceding sections on concurrent relationships between Intelligence and Achievement Measures and Socio-Personality Measures).

Designations of Independence, according to Fall and Spring Teachers' Ratings of Independence, are also predicted by high scores on intelligence and achievement measures, with Spring ratings having generally higher correlations with their predictors. The stronger relationships with Spring ratings is consistent with the results of the concurrent

correlations. Spring Teachers' Ratings are predicted by the end of Kindergarten Stanford-Binet and PPVT measures (with the latter correlation only approaching significance). The Reading Prognosis Test at the end of Kindergarten predicts both Fall and Spring ratings (the former at the $<.10$ level) and the Lorge-Thorndike at the end of second grade predicts only the Fall rating ($p<.10$). There are no significant predictions from intelligence or achievement measures to either the Independence Checklist Classification or the Global Rating of Independence.

Several significant predictive correlations between the earlier measures and sociometric status appear, again indicating that there is a relationship in our samples between academic success and popularity. Fall and Spring Sociometric Ratings and Sociometric Choice Items are predicted by the end of Kindergarten Stanford-Binet, CMMS, and Reading Prognosis Test scores and the end of the second grade Lorge-Thorndike.

Other successful predictions warrant mention here. Higher MCPS Conformity scores for Sample C and in one case Sample D, are predicted by higher scores on earlier intelligence and achievement measures. The Stanford-Binet and the PPVT successfully predict to this subscale from both the end of Kindergarten and the end of third grade, while additional relationships are found with the Reading Prognosis Test and MAT Arithmetic Concepts and Problems. The latter measure approaches a significant negative relationship with MCPS Inhibition; that is, higher scores on the MAT tend to be achieved by less inhibited Ss. A negative correlation at the $p<.10$ level was also found for the CMMS change score and MCPS Aggressivity, that is, with high changers being lower on this MCPS trait.

Only two correlations approaching significance were found for

predictions to measures of Creativity. End of Kindergarten PPVT and CMMS high scores are associated respectively with higher scores on Figural Fluency and Verbal Fluency.

Predictive Correlations: Socio-Personality Measures to Intelligence and Achievement Measures

Predictions from socio-personality measures are concerned almost exclusively with predictions to the Reading subtests of the Metropolitan Achievement Tests (Word Knowledge and Comprehension) taken at the end of fourth and fifth grades. In general, the resulting correlations offer further evidence of relationships elsewhere apparent in our data. Specifically, high achievement tends to be related to independent behavior, high sociometric status, high ratings of cognitive style on the Family Interview, and greater Conformity. It might be noted that these relationships have held up for both predictive and concurrent correlations.

Independence, as assessed by the Spring Teachers' Rating of Independence, the Independence Checklist Classification, and the Global Rating of Independence, predicts higher scores on the later achievement measures. The failure of the Fall Teachers' Ratings to be equally predictive of achievement is consistent with earlier reported findings.

Consistent positive relationships are found between sociometric status and achievement, indicating that children chosen by their classmates obtain higher scores on subsequent achievement measures. Both Fall and Spring measures have comparable predictive validity, with Fall measures tending to be slightly more consistently related to achievement than sociometric measures taken in the Spring.

Family Interview Rating scales are also predictive of later achievement. Those scales showing the strongest relationships with achievement

are the Global Ratings of the family, index child, and siblings, and the Rating of Listening and Attentional Skills.

Only one prediction approaching significance is found for the MCPS scales: Conformity (Sample D) and MAT Reading (Compr.) achievement. This result is in a positive direction and supports other findings.

Predictive Correlations: Socio-Personality Measures to Other Socio-Personality Measures

Investigating the predictive relationships among the socio-personality measures essentially involves a study of the predictability of fourth-grade performance on the basis of instruments administered during the third grade. The specific criterion measures in this case are the MCPS battery, as well as the rating scales of cognitive and communicational style based on family interview behavior. The predictors (third grade measures) involve Independence status--the Independence Z-score designation and the global ratings of independence based on the Checklist. It should be noted that all of these comparisons involve Sample C.

None of the twenty-four correlations performed reached a value significantly different from zero correlation, indicating that various scores based on measures of personality and cognitive style cannot be predicted solely on the basis of Checklist behavior. Two trends ($p < .10$) do emerge, however, both involving the MCPS Inhibition subscale. The Independence Z-score designation and the global ratings of independence relate positively to the measure of inhibition. That is, Ss rated as independent in the third-grade tended to score higher in Inhibition in the fourth grade. It should be noted that there is a supporting pattern in the results for the two independence measures and Aggressivity scores. In both instances, the former scores relate negatively, though nonsignificantly, to Aggressivity.

Summary--Extended Analysis of Interview--Combined Data Forms I and II

Overall, despite the fact that our interview procedures can be regarded as a major contribution to the armamentaria of tools and techniques for family exploration, extended work with data from two years in which responses were combined into a larger pool resulted in generally disappointing findings. Some findings were suggestive, however.

(1) Ratings of home interiors seemed to be significantly associated with ratings of cognitive style in that high or excellent ratings of interiors were consistently associated with higher ratings of the family, ratings of listening and attentional skills, and ratings of task furtherance.

(2) Contrary to expectations, whether or not the father figure lives at home was not associated (except for one non-significant trend) with various family ratings and/or high or low achievement status of the index child (change criteria). Significant findings for combined data, both years, were similarly not found for family's origins and physical mobility; employment pattern of mother; last grade mother completed; location of mother's schooling; voting behavior of the mother; children's memberships in clubs or groups; whether or not children ask mother a lot of questions (children's assessment); whether or not mother likes to be asked questions (children's assessment); why mother likes to be asked questions; whether it bothers mother if children talk when she's working around the house or shopping (children's assessment); whether or not anyone reads to the children; the kinds of books the index child reads; whether or not anyone tells stories to the children; parent's knowledge of activities or whereabouts of children; whether mother asks children to be home at any particular time in the evening; whether or not children

have stable role assignements; why mother feels that family members should be responsible for doing different things around the house; whether index child remembers anything he or she did that mother was proud of; how children know when their mother is proud and how they know when she is angry; what mother does when children have done something she approves of; and what mother's feelings are when she had to punish her children.

(3) On the other hand, the few significant findings that <u>did</u> emerge follow a pattern that suggests that mother's verbal interaction with others, her own cognitive and intellective organization (including her awareness of and participation in the world around her) and the stability of the family organization itself, <u>are</u> related to various cognitive style ratings of her family. Specifically, the accuracy of her schooling estimates for her children, her degree of membership in clubs or groups, ratings of the stability of the family's eating arrangements, whether or not the index child talks to adults, and mother's assessment of whether she likes to be asked questions are all significantly related, in the expected direction, to various family ratings of the cognitive and conceptual style of her family and of the index child, or of the high-low status of the index child.

(4) Although not related to our initial hypotheses, various intra-item comparisons were also run, again with generally disappointing results. One significant finding was that as family size increases there is a greater likelihood that someone in the family will read to the children.

(5) Of the indices constructed, and these were compared to various family ratings and high-low status of the index child, only a trend

emerged: families scoring high on the Verbal Encouragement Index tended to produce index children rated high on the global rating.

(6) MCPS scores (five scales) and ITPA scores were compared to various selected interview items (again, not hypothesis-testing and not with regard to family ratings or status of index child). Further analysis of ITPA data yielded no significant findings. MCPS Conformity scores were positively associated with mothers' verbal expression of their anger rather than physical--an expected finding. Children who talk to adults also received higher Conformity scores. In this population, therefore, it seems highly likely that conformity, compliance, or "getting along" (as measured by the MCPS) is associated with the level of verbal interaction between the mother and her family.

(7) An unexpected finding, in the light of the foregoing, therefore, is that ratings of very stable eating arrangements were found in families in which the index child scored high on Aggressivity on the MCPS.

Obviously, the construct validity--the actual "meanings" of these scores as measured by the MCPS are not clear. Note should be made of the fact, however, that such scores are assigned nominal designations on the basis of "face" considerations, and that norms were based on a white middle class population--a group obviously rather different in various psychosocial parameters from the current sample.

Pages 44-50 of the current report summarize preceding findings based on two years of work with the interview. The current extended analysis supports the general trend of those findings. It was noted that there was some support in the literature for the overall "thrust" of our findings.

Summary--Extended Analysis of Correlational Material

A major objective of the current study was to explore the predictive and concurrent validity of not only available intelligence and achievement measures for our population, but also to explore similar questions for the various instruments we developed in two years of previous research in two different investigations. All instruments, needless to say, whether we developed them for our own purposes or adapted them from available instruments, were developed in the framework of strict inter-scorer (and other relevant) reliability considerations. Our basic questions concerned the possibility that many of these measures could be employed for the prediction of behaviors useful for educators and workers in the field of child development.

(1) As expected, intelligence and achievement measures demonstrate excellent predictive and concurrent validity with regard to other intelligence and achievement measures.

(2) Further, assumptions regarding construct validity are warranted for the cognitive and communicational style ratings of the family based on interview behavior. These ratings were found to relate highly and positively to earlier measures of intelligence and achievement. It appears, thus, that samples of behavior, probably conceptual behavior, are present in both situations, permitting a predictive relationship from intelligence to cognitive style.

(3) As might be expected on the basis of psychometric considerations, IQ change scores were not found to be useful predictor or criterion variables in the present research.

(4) Various socio-personality measures bear a concurrent relationship to achievement behaviors.

(5) Teachers' ratings of independence appear to possess a predictive function, as far as achievement behavior is concerned. Spring ratings relate more highly to achievement than Fall ratings, perhaps as a result of the increased stability of such ratings later in the year in the light of teachers' increased knowledge, and validity of that knowledge, of the children.

(6) Family Interview ratings are also predictive of later achievement. Scales showing the strongest relationships with achievement are the Global Ratings of the family, index child, and siblings, and Ratings of Listening and Attentional Skills.

(7) Many significant predictions from intelligence and achievement measures to later socio-personality measures are found at all grade levels. Intelligence measures, for example, predict Family Interview Rating Scale scores. Intelligence and achievement measures also predict Fall and Spring Teachers' Ratings of Independence. And various intelligence measures predict later sociometric status of the child, in the expected direction.

(8) Various sociometric measures, both in the Fall and in the Spring, consistently relate to subsequent achievement measures. Fall measures, note, predict equally as well as the Spring measures, in contrast to findings concerning teachers' ratings, probably because of the children's familiarity with one another in prior grades.

(9) From the foregoing, it should be stressed that it would appear that even in ghetto populations, contrary to overgeneralizations in the literature extant, achieving and intelligent children, are popular children. That is, a value is placed on the same variables held to be primary in middle-class cultures. Higher achievers are well-liked, even

in populations in which myth has held that intellectual achievement has little value.

(10) Higher MCPS Conformity appears to be predicted by higher scores on earlier intelligence and achievement measures as well as by concurrent achievement measures. Exploration of conformity, as a behavioral construct, seems warranted. Our findings suggest that higher achievement, at a fixed point in time, is associated with the internalization of appropriate age-related standards of behavior deriving from either family or peer relationships.

Model for Prediction of Future Achievement

The major product of this present research is a clearer understanding of those factors which predict achievement in a Black, lower socio-economic status population. Although it was beyond the scope of this investigation to apply regression analysis to our data, future researchers, by careful inspection of our numerous zero order correlations, may be guided in determining the relative weights (or regression coefficients) of each of these proposed factors.

One of our major findings is that early intelligence and achievement measures tend to be consistently and highly related to later achievement measures. Thus, a major aspect of any future study might be a longitudinal analysis of the predictive relationships of intelligence and achievement scores at different points in time to later achievement scores. Additional results clearly indicate, however, that measures other than those obtained in school testing situations should be carefully examined as predictors of achievement. In particular, attention should be focused on the overall cognitive, communicational, and organizational style of the family (as reflections of verbal interaction patterns, stability, and family organization), the sociometric status of the child within his

peer group, the degree to which the child displays "independent" behavior in the classroom, and the extent to which the child "conforms" to the values and behaviors of his family and peers. It is very interesting to note here, that many of those "common-sense" notions characterizing the academic failure of children in a disadvantaged population, for example, absence of the father, did not relate to achievement in our sample.

Since many of the above variables could be measured in our sample at only one point in time, future investigators could clarify the relationships between socio-personality factors and achievement by making even earlier assessments of such variables as independence and sociometric status. Furthermore, replication of our research with other populations might indicate if the relationships we have found are unique to urban disadvantaged children or if they will hold up in other ethnic and social class groups.

Final Note

The extended opportunity for working with data and instruments developed over the preceding two years in two separate studies makes us fairly confident in presenting our instruments to the professional community as tools for assessing various behaviors. Our pilot-work, reliability explorations, and extended empirical explorations with these measures (most of which we developed for our own research purposes) allow us to note that the Independence Checklist, sociometric measures, creativity measures, teachers' ratings for independence, and various ratings of cognitive and family style for family assessment are easy-to-administer objective instruments and techniques which show considerable promise for construct validity. Further, we have conducted extensive analyses with standardized instruments, specifically, the Illinois Test

of Psycholinguistic Abilities and the Missouri Children's Picture Series, which provide additional normative and correlational data on these measures. Both the ITPA and, in particular, the MCPS relate to a number of our variables under investigation and are particularly helpful in adding to our knowledge of the correlates of family cognitive style and children's achievement.

Finally, we should also like to point to the development and cross-validation of our family interview technique--a unique, structured interview which taps interactional (communicational) processes within the family. Earlier sections of this report, previous Final Reports, and sections of this chapter summarize findings based on explorations involving this instrument. Appendix A presents this instrument, which we think, in the light of the years of effort and empirical work we devoted to its development, is a major contribution of our research efforts.

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Table 1

(High-Low Study, 1968-1969, Sample A)

Mean Age and Sex of Fourth Graders who were in the Institute Program from Prekindergarten or Kindergarten through the Third Grade

Public School	N	Sex	Classification[a]	Mean Age[b]
68	5	M--2 F--3	E	112.00
	4	M--0 F--4	FK	111.75
Total	9			111.88
79	4	M--1 F--3	E	114.00
	2	M--2 F--0	FK	111.50
Total	6			113.17
90	5	M--4 F--1	E	112.00
	5	M--3 F--2	FK	111.80
Total	10			111.90
175	8	M--4 F--4	E	111.25
	3	M--1 F--2	FK	109.00
Total	11			110.54
Total, Schools Combined	22		Es	112.04
	14		FKs	111.14
	36	M--17 F--19		111.69

a E designates subjects who entered the IDS program in prekindergarten (1963); FK designates subjects who entered the IDS program in kindergarten (1964).

b As of September, 1968. Converted into months. Mean age for all Ss is just over 9 years, 4 months.

Table 2

(High-Low Study, 1968-1969, Samples A_1 and A_2)

Sample of 1968-1969 Fourth Graders who were in the Institute Program from Prekindergarten or Kindergarten through the Third Grade: Ns per School, Families Interviewed, and Index Children Observed in Cognitive Style Behavioral Sessions

Public School	Number of Subjects (Index Ss)	Number of Index Families Interviewed	Number of Index Ss observed in Behavioral Sessions
68	9	8[a]	6[b]
79	6	6	6
90	10	10	8[b]
175	11	11	10[b]
Total, Schools Combined	36	35[a]	30

[a] One index family has consented to be interviewed, but this interview has not been completed; once completed, the N for this school will be 9 and for schools combined, 36.

[b] Three children in Public School 68, two children in Public School 90, and one child in Public School 175 were not observed in the behavioral sessions because they transferred out of the school district during the 1968-1969 academic year. The total N observed in the behavioral sessions was therefore 30. Of the six Ss not seen, there was an equal number of males and females. Two of these Ss were, in terms of "filler" status, Es, and four were FKs (see Table 1 for explanation of these terms). Mean age calculated for the N of 30 is 111.97 months, barely differing from the mean age reported in Table 1 for the 36 Ss, 111.69 months.

Table 3

(Independence Study, 1968-1969, Sample B)

Experimental Sample Observed in the Classrooms: Mean Age and Sex for Subjects in Public Schools 90 and 175 Classified According to Years of Exposure to the Enrichment Program

Entered IDS Classes	N	Sex	Classification[a]	Mean Age[b] (Months)
		Public School 90		
Pre-K, 1964-1965 (4 years of exposure)	4	M--4 F--0	E	97.25
Kindergarten, 1965-1966 (3 years of exposure)	2	M--1 F--1	FK	101.00
First Grade, 1966-1967 (2 years of exposure)	6	M--3 F--3	F1	99.50
Second Grade, 1967-1968 (1 Year of exposure)	1	M--0 F--1	F2	103.00
Third Grade, 1968-1969 (0 years of exposure)	6	M--3 F--3	F3	98.17
Total, P.S. 90	19	M--11 F--8		98.84
		Public School 175		
Pre-K, 1964-1965 (4 years of exposure)	14	M--8 F--6	E	98.35
First Grade, 1966-1967 (2 years of exposure)	2	M--1 F--1	F1	99.50
Second Grade, 1967-1968 (1 year of exposure)	2	M--2 F--0	F2	99.00
Third Grade, 1968-1969 (0 years of exposure)	3	M--2 F--1	F3	98.00
Total, P.S. 175	21	M--13 F--8		98.48
Total, Schools Combined	40	M--24 F--16	18 Es 2 FKs 8 F1s 3 F2s 9 F3s	98.68

Note--There were no FK subjects in Public School 175 in the third grade.

[a] F categories contain "filler" Ss, added to the experimental group through the years because of attrition.

[b] As of September, 1968. Mean age for all Ss is just under 8 years, 3 months.

Table 4

(Independence Study, 1968-1969, Sample B)

Experimental Sample Observed in the Classrooms: Mean Age for Subjects Classified According to Years of Exposure to the Enrichment Program for Both Schools Combined

Classification	N	Mean Age[a] (Months)
E	18	98.11
FK	2	101.00
F1	8	99.50
F2	3	100.33
F3	9	97.89
Total	40	98.68

[a] As of September, 1968.

Table 5

(Independence Study, 1968-1969, Sample B)

Experimental Sample in the Behavioral Transfer Sessions: Mean Age for Subjects Classified According to Years of Exposure to the Enrichment Program for Both Schools Combined

Classification	N	Mean Age[a] (Months)
E	18	98.11
FK	2	101.00
F1	8	99.50
F2	3	100.33
F3	9	98.25
Total	39	98.76

[a] As of September, 1968.

Table 6

(High-Low Study, 1969-1970, Sample C_1)

Mean Age and Sex of Fourth Graders who were in the Institute Program from Prekindergarten or Kindergarten through the Third Grade

Public School	N	Sex	Classification[a]	Mean Age[b]
68	4	M---2 F---2	E	108.25
	3	M---3 F---0	FK	109.00
Total	7			108.57
79	4	M---2 F---2	E	110.50
Total	4			110.50
200	4	M---4 F---0	E	109.25
	3	M---2 F---1	FK	110.67
Total	7			109.86
175	13	M---8 F---5	E	110.77
Total	13			110.77
Total, Schools Combined	25		Es	110.09
	6		FKs	109.83
	31	M---21 F---10		110.03

Note: The ITPA and the MCPS were administered to the total sample of 31 Ss. The Ns used for analyses, however, varied as a function of the treatment of the data. There were 30 families in the interview sample because one family would not consent to an interview.

[a]E designates subjects who entered the DDS program in prekindergarten (1964). FK designates subjects who entered the DDS program in kindergarten (1965).

[b]As of September, 1969; converted into months. Mean age for all Ss is just over 9 years, 2 months.

Table 7

(Independence Study, 1969-1970, Sample B)

Experimental Sample Observed in the Classrooms: Mean Age and Sex for Subjects in Public Schools 68 and 79 Classified According to Years of Exposure to the Enrichment Program

Entered ESL Classes	N	Sex	Classification[a]	Mean Age[b] (Months)
		Public School 68		
Pre-K, 1965-1966 (4 years of exposure)	10	M=5 F=5	S	82.50
Kindergarten, 1966-1967 (3 years of exposure)	0	M=0 F=0	SS	
First Grade, 1967-1968 (2 years of exposure)	0	M=0 F=0	FG	
Second Grade, 1968-1969 (1 year of exposure)	1	M=1 F=0	SG	108.00
Third Grade, 1969-1970 (0 years of exposure)	7	M=4 F=3	TG	102.29
Total, P.S. 68	18	M=10 F=8		93.50
		Public School 79		
Pre-K, 1965-1966 (4 years of exposure)	7	M=4 F=3	S	93.86
Kindergarten, 1966-1967 (3 years of exposure)	2	M=2 F=0	SS	98.50
First Grade, 1967-1968 (2 years of exposure)	0	M=0 F=0	FG	
Second Grade, 1968-1969 (1 year of exposure)	2	M=2 F=0	SG	108.50
Third Grade, 1969-1970 (0 years of exposure)	11	M=6 F=5	TG	105.27
Total, P.S. 79	22	M=12 F=10		100.91
Total, Schools Combined	40	M=22 F=18	SS 2s S 10s SG 1s TG 11s 3 TGs 18 TGs	100.80

[a] S categories contain "ESOL" Sr. prior to the experimental group through the years because of retention.

[b] As of September, 1969. Mean age for all Ss is just under 8 years, 4 months.

Table 8

(Undergraduate Study, 1969-1970, Sample B)

Representative Sample Obtained in the Classroom Room Age for

Subjects Classified According to Years of Exposure to

the Enrichment Program for Both Schools Combined

Classification	N	Mean Age* (Months)
K	27	98.67
#1	2	99.50
#2	0	
#3	3	100.33
#4	28	100.50
Total	60	100.80

* As of September, 1969.

Table 9

Means and Standard Deviations for Instruments at Given Grade Levels

Measure and Grade Level[a]	Mean	S.D.	N
S-B--end of K_0	99.59	11.08	98
S-B--end of 2nd	97.49	13.93	85
S-B--change score	-2.35	18.63	74
BIVS--end of K_0	88.01	10.32	97
BIVS--end of 2nd	94.97	13.58	67
BIVS--change score	6.99	15.33	74
DRS--end of K_0	97.29	11.94	94
DRS--end of 2nd	88.84	18.29	67
DRS--change score	-8.23	17.48	74
Reading Prog$_0$--end of K_0	26.38	9.22	93
S-B--end of 2nd	92.85	10.40	39
Gates--end of 2nd	44.03	9.88	79
WISE Vocab(1)--end of 3rd	51.44	10.72	36
WISE Portions$_0$--end of 3rd	52.86	11.73	36
WISE Fill(1)--end of 3rd	52.19	11.28	36
WAT Reading (Rd$_0$ Vcb$_0$)--end of 3rd	.86	.08	36
WAT Reading (Comp$_0$)--end of 3rd	.92	.82	36
WAT Arith$_0$ (E_0 & P_0)--end of 3rd	.84	.82	110
WAT Arith$_0$ (Comp$_0$)--end of 3rd	.87	.08	110
WAT Reading (Rd$_0$ Vcb$_0$)--end of 4th	.86	.08	92
WAT Reading (Comp$_0$)--end of 4th	.91	.87	98
WAT Reading (Rd$_0$ Vcb$_0$)--end of 5th	.82	.08	93
WAT Reading (Comp$_0$)--end of 5th	.84	.88	93
Iowa Comp$_0$--6-8 of 4th	.88	.08	48

Table 9 (cont.)

Measure and Grade Level[b]	Mean	S.D.	N
Lang. Arith.--end of 4th	.86	.50	50
Ind. Child. Classif.--end of 3rd	.98	.50	55
Global Ind. Rating--end of 3rd	.71	.45	59
Full Teachers' Rating of Ind.--3rd grade	.38	.49	37
Spr. Teachers' Rating of Ind.--3rd grade	.98	.50	36
Full Socio. Rating--3rd grade	.81	.25	39
Spr. Socio. Rating--3rd grade	.81	.25	39
Full Socio. Choice #1--3rd grade	.39	.50	26
Full Socio. Choice #5--3rd grade	.35	.48	29
Spr. Socio. Choice #1--3rd grade	.43	.50	35
Spr. Socio. Choice #5--3rd grade	.37	.49	35
Creativity (Mov. Flu.)--end of 3rd	9.74	5.79	38
Creativity (Mov. Flex.)--end of 3rd	8.57	3.44	38
Creativity (Mov. Orig.)--end of 3rd	3.24	3.43	38
Creativity (Fig. Flu.)--end of 3rd	10.28	3.89	39
Creativity (Fig. Flex.)--end of 3rd	9.03	3.89	39
Creativity (Fig. Orig.)--end of 3rd	2.72	3.83	39
Creativity (Fig. Elab.)--end of 3rd	12.36	8.56	39
IQSN--end of 4th	102.31	15.58	33
Global Rating of Fam.--end of 4th	.67	.48	46
Global Rating of Indiv Ch.--end of 4th	.61	.49	46
Global Rating of Sibs.--end of 4th	.58	.50	57
Mode of Comm.--end of 4th	.79	.41	46
Listen. & Attent. Skills--end of 4th	.68	.47	46
Book Instr.--end of 4th	.61	.49	46
Concept. Level--end of 4th	.65	.48	46

Table 9 (cont.)

Measure and Grade Level	Mean	S.D.	N
MCPS Conf.--end of 3rd*	45.85	11.02	39
MCPS Mat.--end of 3rd*	45.00	9.87	39
MCPS Agg.--end of 3rd*	54.36	10.64	39
MCPS Inh.--end of 3rd*	49.05	10.21	39
MCPS Hyper.--end of 3rd*	54.15	8.70	39
MCPS Conf.--end of 4th**	52.48	7.44	31
MCPS Mat.--end of 4th**	40.81	8.72	31
MCPS Agg.--end of 4th**	57.13	10.52	31
MCPS Inh.--end of 4th**	50.90	9.81	31
MCPS Hyper.--end of 4th**	55.42	11.97	31

Abbreviations for the various instruments are explained in the text of Chapter 5, pp. 104 to 106. K. stands for Kindergarten level.

* Sample B only.

** Sample C only.

Appendix A

Interview Schedules, Form I and Form II; Coding Schemes for Each Interview and Frequencies Obtained for Each Coded Part ("Marginals")

The next pages present both forms of the interview and the raw data (frequencies) obtained from the actual sessions. It can be seen from these pages that some minor modifications of items as well as new items were introduced into Form II (see Chapter 5 for explanations as to why these changes were made). Form I interview was pilot-tested and administered as part of the 1968-1969 phase of the study, and Form II was pilot-tested and administered in the 1969-1970 phase of the study (continuation). Elaborate coding schemes were developed in the first year's work, which later were modified, eliminated, or retained in the light of the actual responses obtained. Not only can coding changes from one year to the next be seen from this Appendix, but also differences between the years with regard to actual empirical findings. Note, N for Form I was 30, and N for Form II was 30.

It can be seen from Item I that its parts cover much core data. Not included are the ratings that form an intrinsic aspect of this study. These are described elsewhere in this report.

INTERVIEW ITEMS---FORM I	INTERVIEW ITEMS---FORM II	CODING---FORM I	CODING---FORM II
ITEM (1) Ask entire family Could you please tell me how many people are living in this apartment right now? Could each of you tell me your name and how you are related to (name index child)? Ask each child: How old are you? Do you go to school? (IF YES) What grade are you in? (IF NO) What do you do? What is the last grade in school you completed?	ITEM (1) ITEM UNCHANGED	ITEM (1) Total number of persons physically present at interview (includes all visitors, other relatives, etc. present): (0) two (1) three (2) four (3) five (4) six (5) seven (6) eight (7) nine (8) ten eleven (9) twelve over twelve Parental figure(s) living in household: (1) mother only (2) father only (3) mother and father only (4) grandmother (5) mother and grandmother only (6) mother, father, and grandmother (7) other	ITEM (1) CODE UNCHANGED

(A-2)

GENERATIVE ITEMS----FORM I	INTERVIEW ITEMS----FORM II	CODING----FORM I	CODING----FORM II
		ITEM (1) (continued)	ITEM (1) (continued)
		Parental figures present at interview:	
		(1) mother present only 32	CODE 25
		(2) father present only 0	0
		(3) mother & father present only 3	UNCHANGED 3
		(4) grandmother present only 1	1
		(5) other (specify) 0	1
		Total number of siblings present at interview (includes index child):	
		(0) one 2	CODE 7
		(1) two	9
		(2) three 14	UNCHANGED 6
		(3) four	5
		(4) five	1
		(5) six	0
		(6) seven	2
		(7) eight	0
		(8) nine	0
		(9) ten or over	0
		Children other than siblings present at interview (16 and under):	
		(1) none 30	CODE 23
		(2) one	5
		(3) two 2	UNCHANGED 2
		(4) three	0
		(5) four	0
		(6) five	0
		(7) six	0

(A-3)

CODING-----FORM I	CODING----FORM II
ITEM (1) (continued) Adults other than parental figures present at interview (over 16 years): (1) none (2) one (3) two (4) three (5) four (6) five (7) six 33 |||	ITEM (1) (continued) CODE UNCHANGED 28 |1||0|0|0|0|
Number of people wandering in and out of interview but not present for most of interview: (1) one or more non-participants sporadically present (2) no non-participants sporadically present (3) can't rate 3 ||| 33 |||	CODE UNCHANGED 1 ||| 29 |0|
Number of family members who are permanent household residents: (0) two (1) three (2) four (3) five (4) six (5) seven (6) eight (7) nine (8) ten (9) eleven and over 34 ||||||||||	CODE UNCHANGED 1 |1|||||||||| 0 |0||||||||||

(A-4)

INTERVIEW ITEMS----FORM I	INTERVIEW ITEMS----FORM II	CODING----FORM I	CODING----FORM II
		ITEM (1) (continued)	ITEM (1) (continued)
		Number of persons who are temporarily living in household:	
		(1) none 3½	CODE 30
		(2) one	
		(3) two	UNCHANGED
		(4) three	
		(5) four	
		(6) five	
		(7) over five	
		Number of siblings living in household older than index child:	
		(1) none 9	CODE 3
		(2) one	
		(3) two	UNCHANGED
		(4) three	
		(5) four	
		(6) five	
		(7) six	
		(8) seven	
		(9) over seven	
		Number of female siblings living in household older than index child:	
		(1) none 4½	CODE 4
		(2) one	
		(3) two	UNCHANGED
		(4) three	
		(5) four	
		(6) five	

(A-5)

INFORMATION ITEMS---FORM I	INFORMATION ITEMS---FORM II	CODING----FORM I	CODING----FORM II
		ITEM (1) (continued) Number of female siblings living in home other than index child (continued) (7) six (8) over six Number of male siblings living in home other than index child: (1) none (2) one (3) two (4) three (5) four (6) five (7) six (8) over six Age of youngest child living at home (includes index child): (1) Index child is only child living at home (2) Infant to 2 years (3) 3 to 5 years (4) 6 to 8 years (5) 9 to 11 years (6) 12 to 14 years	ITEM (1) (continued) CODE UNCHANGED CODE UNCHANGED

[illegible]

[illegible]

[illegible]

INTERVIEW ITEMS----FORM I	INTERVIEW ITEMS----FORM II	CODING----FORM I	CODING----FORM II
ITEM (2) (continued) necessary: for example, are there any friends of the family, relatives or neighbors that you enjoy talking to?) /Specify for each child./ (IF YES) Who? What do you usually talk about? About how often do you talk to _____?	ITEM (2) (continued) ITEM PART UNCHANGED ITEM PART DELETED, FORM II ITEM PART UNCHANGED	ITEM (2) (continued) Persons index child speaks to: (0) not applicable, "no" or "can't rate" to part (a) 6 (1) relative; e.g., grandmother, aunt, cousin, etc. 10 (2) neighbor(s) 10 (3) mother's friend 0 (4) any combination of (1), (2), (3) above 2 (5) a friend's relative or parent 1 (6) institutional or community representative; e.g., director of neighborhood center, group counselor, school principal, etc. 0 (7) neighborhood storekeeper, clerk 0 (8) vague response, e.g., "man in neighborhood", "man around the corner" 5 (9) can't rate, no answer 0 (X) other 2 Frequency of index child's contact: (0) daily 10 (1) 3 or more times per week 6	ITEM (2) (continued) CODE 11 UNCHANGED 3 12 1 0 2 0 0 1 0 0 CODE 16 UNCHANGED 1

INTERVIEW ITEMS----FORM I	INTERVIEW ITEMS----FORM II	CODING----FORM I	CODING---FORM II
		ITEM (2) (continued) Frequency of index child's contact (continued): (2) once or twice a week 10 (3) every few weeks 1 (4) once a month 1 (5) less than once a month 0 (6) no answer 2 (7) can't rate 0 (8) not applicable, "no" or "can't rate" to part (a) 6 (9) other 0 Do siblings six years of age or older talk to grownups? (include index child): (1) not applicable, no siblings other than index child or no siblings other than index child six years or older 2 (2) all talk to grownups 20 (3) mixed; some say yes, some say no 10 (4) none talk to grownups 1 (5) can't rate 3	ITEM (2) (continued) 2 0 0 0 0 0 11 0 NOT CODED, FORM II

INTERVIEW ITEMS----FORM I	INTERVIEW ITEMS----FORM II	CODING----FORM I	CODING----FORM II
		ITEM (2) (continued) If all siblings (six years and older) including index child speak to grownups, how frequent is this contact? (1) not applicable, "all talk to grownups" is not checked in part (d) above 17 (2) all talk to grownups daily, or once or twice, or three times per week 16 (3) mixed; some talk to grownups at least once a week, some talk to grownups less frequently 0 (4) all talk to grownups every few weeks or less often 0 (5) can't rate 3	ITEM (2) (continued) NOT CODED, FORM II
ITEM (3) Ask parent(s): Do you ever see or talk to friends or relatives? (IF YES) About how often do you see them? Where do you usually see them?	ITEM (3) ITEM PART UNCHANGED ITEM PART UNCHANGED ITEM PART UNCHANGED	ITEM (3) Does mother have contact with friends or relatives? (1) yes 35 (2) no 1 (3) can't rate 0	ITEM (3) CODE 28 1 UNCHANGED 1

INTERVIEW ITEMS----FORM I	INTERVIEW ITEMS----FORM II	CODING----FORM I	CODING----FORM II
ITEM (3) (continued) What do you usually talk about when you see them? Do friends or relatives ever visit you?	ITEM (3) (continued) ITEM PART DELETED, FORM II ITEM PART UNCHANGED	ITEM (3) (continued) Frequency of mother's contact: (0) daily 22 (1) three or more times per week 5 (2) once or twice a week 6 (3) every few weeks 1 (4) once a month 1 (5) less than once a month 0 (6) no answer 0 (7) can't rate 0 (8) not applicable, mother said no contacts 1 (9) other 0 Place of mother's contact with friends or relatives: (1) not applicable, mother said no contacts 1 (2) at mother's or at friends' or relatives' homes (check also if says "home" plus "on telephone") 20 (3) institutional or community facility, e.g., school meetings, church, etc. 2 (4) "chancy" meetings or informal encounters, e.g., hall way, street, on the stoop 6	ITEM (3) (continued) CODE 17 UNCHANGED 3 7 1 0 0 0 0 1 1 0 PARTS (1) to (8) 1 UNCHANGED NOTE: ADDITION 20 OF PART (9) 0 2

(A-12)

INTERVIEW ITEMS----FORM I	INTERVIEW ITEMS----FORM II	CODING----FORM I	CODING----FORM II
		ITEM (3) (continued) Place of mother's contact with friends or relatives (continued): (5) vague, e.g., "outside of home" 2 (6) telephone (if mentioned exclusively) 2 (7) can't rate 0 (8) other 3 Do friends or relatives ever visit mother? (1) yes, unqualified 32 (2) yes, but with some qualifying remark such as "infrequently" 1 (3) no, but observer notes that there were visitors during the interview 1 (4) no, unqualified 2 (5) can't rate 0	ITEM (3) (continued) 0 0 1 0 (9) mixed, combination of two or more of above 6 CODE 25 UNCHANGED 1 0 2 2
ITEM (4) Ask parent(s): What kind of job would you like each of your children to have when they grow up? (Specify for each child.)	ITEM (4) ITEM UNCHANGED	ITEMS (4) & (5)	ITEMS (4) & (5)

INTERVIEW ITEMS---FORM I	INTERVIEW ITEMS----FORM II	CODING----FORM I	CODING----FORM II
ITEM (4) (continued) Ask each child: What would you like to be when you grow up?		ITEMS (4) & (5) Mother's occupational aspiration for index child: (0) professional, e.g., teacher, doctor, lawyer, psychiatrist, nurse, cartoonist, architect, business-man 16 (1) professional athlete 1 (2) technical or semi-professional, e.g., practical nurse, computer worker, policeman 1 (3) clerical, secretarial 2 (4) skilled or semi-skilled worker, e.g., carpenter, bus driver 0 (5) unskilled, e.g., construction worker 0 (6) vague, but implying upward aspirations, e.g., "the best possible" or "better than what I've got" 2 (7) wants child to choose own job, e.g., "whatever (he) wants to do" 8 (8) doesn't know, e.g., "haven't thought about it" 5 (9) can't rate 0 (X) other 1	ITEMS (4) & (5) CODE 10 UNCHANGED 1 0 1 0 0 3 11 1 2 1

INTERVIEW ITEMS----FORM I	INTERVIEW ITEMS----FORM II	CODING----FORM I	CODING----FORM II
		ITEMS (4) & (5) (continued)	ITEMS (4) & (5) (continued)
		Index child's occupational aspiration:	
		(0) professional, e.g., teacher, doctor, lawyer, psychiatrist, nurse, cartoonist, architect, etc. 23	CODE 15
		(1) professional athlete 4	UNCHANGED 5
		(2) technical or semi-professional, e.g., practical nurse, computer worker, policeman 2	2
		(3) clerical, secretarial 0	2
		(4) skilled or semi-skilled worker 0	1
		(5) unskilled, e.g., construction worker 2	0
		(6) vague, but implying upward aspiration 0	0
		(7) doesn't know, e.g., "haven't thought about it" 1	1
		(8) can't rate 1	2
		(9) other 3	2

(A-15)

INTERVIEW ITEMS----FORM I	INTERVIEW ITEMS----FORM II	CODING----FORM I	CODING----FORM II
		ITEMS (4) & (5) (continued)	ITEMS (4) & (5) (continued)
		Consistency between mother's aspirations for index child and index child's own aspirations:	
		(1) both have professional aspirations 11	CODE 8
		(2) both mention professional athlete 1	UNCHANGED 0
		(3) both have semi-professional or technical aspirations 1	0
		(4) both have clerical or secretarial aspirations 0	0
		(5) both have unskilled aspirations 0	0
		(6) both have same aspiration listed in "other" category 1	1
		(7) discrepancy, mother's aspiration higher than index child's 6	2
		(8) discrepancy, mother's aspiration lower than index child's 2	1
		(9) can't rate, e.g., either mother or child did not respond, either or both responses vague, etc. 14	18

INTERVIEW ITEMS----FORM I	INTERVIEW ITEMS----FORM II	CODING----FORM I	CODING----FORM II
		ITEMS (4) & (5) (continued)	ITEMS (4) & (5) (continued)
		Occupational aspirations of children ten years or older (excluding index child):	
		(1) no children other than index child who are 10 years or older 9	CODE 2
		(2) all children verbalize professional aspirations 11	UNCHANGED 10
		(3) all children verbalize professional or semi-professional aspirations 6	4
		(4) mixed; some verbalize professional or semi-professional, some verbalize clerical, secretarial or below 3	2
		(5) all children verbalize clerical, secretarial or below 3	1
		(6) can't rate 4	10
		(7) other 0	1
		Consistency between mother's and children's aspirations--apply for children 10 years of age or older excluding index child:	
		(1) no children other than index child who are ten years or older 9	CODE 2
			UNCHANGED

INTERVIEW ITEMS----FORM I	INTERVIEW ITEMS----FORM II	CODING----FORM I	CODING----FORM II
		ITEMS (4) & (5) (continued) Consistency between mother's and children's aspirations--apply for children 10 years of age or older excluding index child: (continued) (2) can't rate; either mother or one or more children did not respond, response vague, etc. 17 (3) mother and all children have professional aspirations 3 (4) mother and all children have semi-professional or technical aspirations 1 (5) mother and all children have unskilled aspirations 1 (6) discrepancy, at least one instance where mother's aspiration is higher than a child's 2 (7) discrepancy, at least one instance where mother's aspirations are lower than a child's 3 (8) other, e.g., if both of above codes are applicable 0	ITEMS (4) & (5) (continued) 19 5 0 0 1 2 1

INTERVIEW ITEMS----FORM I	INTERVIEW ITEMS----FORM II	CODING----FORM I	CODING----FORM II
		ITEMS (4) & (5) (continued)	ITEMS (4) & (5) (continued)
		Accuracy or appropriateness of mother's estimate of schooling for index child:	
		(1) accurate or appropriate 9	CODE 3
		(2) reasonably accurate or appropriate 5	UNCHANGED 6
		(3) little, no, or vague accuracy 5	3
		(4) no answer 0	0
		(5) can't rate 2	1
		(6) not applicable 15	17
		(7) other 0	0
		Accuracy or appropriateness of mother's estimate of schooling for all children (including index child):	
		(1) all estimates made are (1) accurate or appropriate or (2) reasonably accurate or appropriate 10	CODE 7
		(2) mixed; some estimates made are (1) or (2), some are (3) 7	UNCHANGED 1
		(3) all estimates made are (3) little, no or vague accuracy 4	2
		(4) can't rate, e.g., estimates fall in categories (4), (5), (6), or (7) 15	19
		(5) other 0	1

INTERVIEW ITEMS----FORM I	INTERVIEW ITEMS----FORM II	CODING----FORM I	CODING----FORM II
ITEM (6) Ask entire family: Do any of you belong to any groups or clubs, for example, a PTA or school organization, youth center, social club, church group, political group, community action group, tenant association, lodge, scouting group, or union? (IF YES) Ask each family member re: each group or club mentioned: What do you do in this group (club, organization, etc.)? How much time do you spend there? (Probe to determine degree of participation.) ITEM PART NOT DEVELOPED, FORM I	ITEM (6) ITEM PART UNCHANGED ITEM PART UNCHANGED ITEM PART UNCHANGED Would you say that you are a very active, moderately active, or inactive member of this club? (Parent may be asked to assist in above rating for each child.)	ITEM (6) Membership in groups or clubs: (a) Mother only: (1) not member of any group or club 17 (2) inactive member only of one or more groups 5 (3) moderately active member only of one or more groups 5 (4) very active member of at least one group (even if inactive or moderately active in other clubs or groups, check here if very active in at least one group) 9 (5) other; e.g., has inactive or moderately active membership in two or more groups 0 (6) can't rate 0 (b) Index child and siblings older than index child: (1) none of above siblings belongs to any club or group 8 (2) most of above siblings (e.g., three out of four, or four out of five) do not belong to any group of club 3	ITEM (6) CODE 11 UNCHANGED 3 4 11 0 1 PARTS (1)-(5) 11 UNCHANGED 0

INTERVIEW ITEMS----FORM I	INTERVIEW ITEMS----FORM II	CODING----FORM I	CODING----FORM II
		ITEM (6) (continued) (b) Index child and siblings older than index child: (continued) (3) some of above siblings are coded (3)-moderately active, and some (4)-very active, in at least one club or group 14 (4) all of above siblings are coded (4)-belongs, very active in at least one club or group 11 (5) can't rate 0	ITEM (6) (continued) NOTE: ADDITION OF 0 PARTS (6)-(8) 13|0|0 (6) other (7) mixed; one or more (3)-moderately active or (4)-very active member, one or more (2)-inactive or (1)-not member of any group or club 5 (8) all of above siblings are coded (3)-belongs, moderately active in at least one group or club 1

INTERVIEW ITEMS----FORM I	INTERVIEW ITEMS----FORM II	CODING----FORM I	CODING----FORM II
ITEM (7) Ask parent(s) and any children or other adults of voting age: Do you vote? (IF YES) How often do you vote? For example, would you say that you vote in: most elections, some elections, or few or no elections? (IF NO) Are you registered?	ITEM (7) ITEM UNCHANGED	ITEM (7) Does mother vote? (1) yes 31 (2) no, but is registered 1 (3) no, and is not registered 4 (4) can't rate 0 How frequently does mother vote? (1) most or all elections 24 (2) some elections 4 (3) few or no elections 3 (4) no answer 0 (5) can't rate 0 (6) not applicable, e.g., "no" to part (a) 5 (7) other 0 Does father vote? (1) no father in home or father not present to answer question 31 (2) yes 4 (3) no,but is registered 0 (4) no, and is not registered 1 (5) can't rate 0	ITEM (7) CODE 23 0 UNCHANGED 6 1 CODE 18 4 UNCHANGED 1 0 1 6 0 CODE 17 2 UNCHANGED 1 0 10

INTERVIEW ITEMS----FORM I	INTERVIEW ITEMS----FORM II	CODING----FORM I	CODING----FORM II
		ITEM (7) (continued) How frequently does father vote? (1) most or all elections 3 (2) some elections 1 (3) few or no elections 0 (4) no answer 0 (5) can't rate 0 (6) not applicable 32 (7) other 0	ITEM (7) (continued) CODE 2 0 UNCHANGED 0 0 2 26 0
ITEM (8) Ask parent(s): I realize that children often have a large number of friends. However, would you say that you know: most or all of your children's friends many of your children's friends? some of your children's friends? Is this true for all of your children? (IF NO) Why not?	ITEM (8) ITEM UNCHANGED	ITEM (8) Extent of mother's knowledge of children's friends: (1) knows most or all 22 (2) knows many 2 (3) knows some 7 (4) knows few or none 5 (5) no answer 0 (6) can't rate 0 (7) not applicable 0 (8) other 0 Applicability for all children: (1) yes, true for all children 33 (2) no, not true for all children 1 (3) no answer 0 (4) can't rate 0 (5) not applicable 2 (6) other 0	ITEM (8) CODE 20 1 5 3 0 1 0 0 UNCHANGED CODE 25 UNCHANGED 2 0 2 1 0

INTERVIEW ITEMS----FORM I	INTERVIEW ITEMS----FORM II	CODING----FORM I	CODING----FORM II
ITEM (9) Ask each child over 5: Do you children usually tell your mother (parents) where you are going after school? (Record for children attending school only.)	ITEM (9) ITEM PART UNCHANGED	ITEM (9) Do school-age children tell parent(s) where they are going after school? Index child only: (1) usually yes 29 (2) usually no 3 (3) sometimes yes, sometimes no 2 (4) no answer 0 (5) can't rate 0 (6) not applicable 2 (7) other 0 School-age siblings (excluding index child): (1) consensus, usually yes 22 (2) consensus, usually no 4 (3) some yes, some no 3 (4) consensus, sometimes yes, sometimes no 3 (5) can't rate 0 (6) not applicable 4 (7) other 0	ITEM (9) CODE 23 2 UNCHANGED 1 0 0 4 0
(IF NO) Why not?	ITEM PART DELETED, FORM II.	If no, why not? (Code only for index child) (1) mother and/or child imply or say that index child refuses to tell, sneaks out, etc. 2	CODE 17 1 UNCHANGED 0 0 6 6 0 CODE DELETED, FORM II

INTERVIEW ITEMS----FORM I	INTERVIEW ITEMS----FORM II	CODING----FORM I	CODING----FORM II
ITEM (9) (continued)		ITEM (9) (continued) If no, why not? (Code only for index child) (continued) (2) mother and/or child imply that index child is capable of taking care of himself 0 (3) can't rate, e.g., "no" response in part (a) but no answer here 1 (4) not applicable, e.g., answer other than "no" to part (a) 33 (5) other 0	ITEM (9) (continued)
214 Do you usually tell your mother (parents) where you are going in the evening?	ITEM PART UNCHANGED	Do children tell parents where they are going in the evening? Index child only: (1) usually yes 22 (2) usually no 5 (3) sometimes yes, sometimes no 0 (4) no answer 0 (5) can't rate 0 (6) not applicable, children not allowed out in evening 9 (7) not applicable, other reason 0 (8) other 0	CODE 18 4 UNCHANGED 1 0 0 7 0 0

INTERVIEW ITEMS----FORM I	INTERVIEW ITEMS----FORM II	CODING----FORM I	CODING----FORM II	(A-26)
		ITEM (9) (continued) Do children tell parents where they are going in the evening? (continued) Siblings under 14 (excluding index child):	ITEM (9) (continued)	
		(1) consensus, usually yes 21	CODE 12	
		(2) consensus, usually no 3		
		(3) some yes, some no 0	UNCHANGED 0/1	
		(4) consensus, sometimes yes, sometimes no 0		2
		(5) no answer 0		0
		(6) can't rate 1		5
		(7) not applicable, children not allowed out in evening 7		7
		(8) not applicable, other reason 4		3
		(9) other 0		0
		Siblings 14 or over:		
		(1) consensus, usually yes 9	CODE	5
		(2) consensus, usually no 3		
		(3) some yes, some no 0	UNCHANGED	1/0
		(4) consensus, sometimes yes, sometimes no 1		1
		(5) no answer 0		0
		(6) can't rate 3		9
		(7) not applicable, children not allowed out in evening 3		1
		(8) not applicable, other reason 17		13
		(9) other 0		0

INTERVIEW ITEMS----FORM I	INTERVIEW ITEMS----FORM II	CODING----FORM I	CODING----FORM II
ITEM (10) Ask each child attending school: What are some of the things you do with your friends after school?	ITEM (10) ITEM DELETED, FORM II	ITEM (10) Things children do with their friends after school: Index child only: (1) mention of play activity only, e.g., play, swim, play punchball, skip rope, play softball, other ball games, take out bikes, go to after-school play center, etc. 32 (2) mention of any of above plus non-play activity, such as do homework, go to the library, study, etc. 1 (3) mention of any of the play activities above plus other activity 2 (4) mention of homework, library, study, etc., only 1 (5) do nothing, sit around, etc. 0 (6) can't rate 0 (7) other 0 School-age siblings 14 years of age or older: (1) no school-age siblings 14 years of age or older 21	ITEM (10) CODE DELETED, FORM II

INTERVIEW ITEMS----FORM I	INTERVIEW ITEMS----FORM II	CODING----FORM I	CODING----FORM II
		ITEM (10) (continued) School-age siblings 14 years of age or older (continued): (2) response or responses all appear age-appropriate, e.g., parties for older teenagers, sports for young teenage boys, etc. 8 (3) at least one (or more) responses imply or state that one or more children come right home after school, activity not specified 3 (4) at least one (or more) responses imply or state that child "does nothing" after school 1 (5) can't rate 3 (6) other 0 School-age siblings under 14 years of age (excluding index child): (1) no school-age siblings under 14 years of age other than index child 4 (2) responses all appear age-appropriate 29 (3) one or more of siblings state that he (they) do nothing 1	ITEM (10) (continued) CODE DELETED, FORM II CODE DELETED, FORM II

INTERVIEW ITEMS----FORM I	INTERVIEW ITEMS----FORM II	CODING----FORM I	CODING----FORM II
		ITEM (10) (continued) School-age siblings under 14 years of age (excluding index child) (continued): (4) can't rate 2 (5) other 0	ITEM (10) (continued)
ITEM (11) Ask mother: It may be difficult to remember but would you tell me what each of your children did after school yesterday? (Specify for each child attending school.)	ITEM (11) ITEM UNCHANGED	ITEM (11) Mother's recollection of children's after school activities of previous day: Recollection of index child's activities: (1) clear recollection 24 (2) vague recollection 8 (3) little or no recollection 2 (4) no answer 0 (5) can't rate 1 (6) not applicable 1 (7) other 0 Recollection of school-age siblings activities (excluding index child): (1) clear recollection of all children's activities 18 (2) Mixed; clear recollection of some children's activities; vague little or no recollection of other children's activities 4	ITEM (11) CODE 21 4 UNCHANGED 1 0 3 1 0 CODE 19 UNCHANGED 0

INTERVIEW ITEMS----FORM I	INTERVIEW ITEMS----FORM II	CODING----FORM I	CODING----FORM II
		ITEM (11) (continued) Recollection of school-age siblings activities (excluding index child) (continued): (3) vague, little or no recollection of all children's activities 7 (4) not applicable, e.g., no school-age children other than index child 5 (5) can't rate 2 (6) other 0	ITEM (11) (continued) 6 1 4 0
ITEM (12) Ask parent(s): Do you ask your children to be home at any specific time in the evening? (Record for children over 5.)	ITEM (12) ITEM UNCHANGED	ITEM (12) Do you ask your children to be home at any particular time in the evening? Index Child: (1) yes 34 (2) no 0 (3) sometimes yes, sometimes no 1 (4) no answer 0 (5) can't rate 0 (6) not applicable 1 (7) other 0	ITEM (12) CODE 29 1 UNCHANGED 0 0 0 0 0

INTERVIEW ITEMS----FORM I	INTERVIEW ITEMS----FORM II	CODING----FORM I	CODING----FORM II
		ITEM (12) (continued) Do you ask your children to be home at any particular time in the evening(cont.): Siblings 6-13 (excluding index child): (1) all yes 29 (2) all no 0 (3) all sometimes yes sometimes no 1 (4) mixed; some children yes, some no 0 (5) no answer 00 (6) can't rate 0 (7) not applicable; e.g., no siblings under 14 6 (8) other 0 Siblings 14 and over: (1) all yes 11 (2) all no 3 (3) all sometimes yes, sometimes no 1 (4) mixed; some children yes, some no 1 (5) no answer 0 (6) can't rate 2 (7) not applicable, e.g., no siblings over 14 18 (8) other 0	ITEM (12) (continued) CODE 25 0 UNCHANGED 0 0 000 5 0 CODE 13 5 UNCHANGED 0 0 0 1 11 0

(A-31)

022

INTERVIEW ITEMS----FORM I	INTERVIEW ITEMS----FORM II	CODING----FORM I	CODING----FORM II
ITEM (13) Ask parent(s): Do you feel that family members should be responsible for doing different things around the house?	ITEM (13) ITEM UNCHANGED	ITEM (13) Do you feel that family members should be responsible for doing different things around the house? Mother: (1) yes 36 (2) no 0 (3) mixed; yes and no 0 (4) no answer 0 (5) can't rate 0 (6) not applicable 0 (7) other 0 Father: (1) yes 3 (2) no 0 (3) mixed; yes and no 0 (4) no answer 0 (5) can't rate 2 (6) not applicable 31 (7) other 0	ITEM (13) CODE 28 1 0 0 1 0 0 UNCHANGED CODE 3 0 0 0 10 17 0 UNCHANGED
(IF YES) Why do you feel this way? (Probe re: if responsibility is given to teach children, to keep them out of the way, etc.)		If yes, why do you feel this way? Mother: (1) not applicable, e.g., response other than "yes" to part (a) 0	2

INTERVIEW ITEMS----FORM I	INTERVIEW ITEMS----FORM II	CODING----FORM I	CODING----FORM II
		ITEM (13) (continued) If yes, why do you feel this way (continued)? Mother (continued): (2) response stresses learning and/or training for the future; re: responsibility, training while children are still young. (Check here even if mentioned in combination with other categories) 16 (3) response stresses immediate practical household results; e.g., keeping house neater, cleaner, etc. 1 (4) response stresses neither training for responsibility nor immediate practical household results; e.g., "keeps them busy," "keeps them out of trouble," etc. 4 (5) other, but a general conceptual principle seems involved 6 (6) other, vague, non-conceptual response; no principle involved, e.g., says family members should have responsibility but doesn't explain why 8	ITEM (13) (continued) CODE 14 UNCHANGED 1 3 2 7

INTERVIEW ITEMS----FORM I	INTERVIEW ITEMS----FORM II	CODING----FORM I	CODING----FORM II
		ITEM (13) (continued) If yes, why do you feel this way (continued)? Mother (continued): (7) can't rate 1 (8) other 0 Father: (1) not applicable, e.g., response other than "yes" to part (a) 33 (2) response stresses learning and/or training for the future; re: responsibility, training while children are still young. (Check here even if mentioned in combination with other categories 1 (3) response stresses immediate practical household results; e.g., keeping house neater, cleaner, etc. 0 (4) response stresses neither training for responsibility nor immediate practical household results; e.g., "keeps them busy," "keeps them out of trouble," etc. 0 (5) other, but a general conceptual principle seems involved 1	ITEM (13) (continued) 1 0 CODE 27 UNCHANGED 2 0 1 0

INTERVIEW ITEMS----FORM I	INTERVIEW ITEMS----FORM II	CODING----FORM I	CODING----FORM II
ITEM (13) (continued)		ITEM (13) (continued)	ITEM (13) (continued)
		If yes, why do you feel this way (continued)? Father (continued):	
		(6) other, vague, non-conceptual response; no principle involved, e.g., says family members should have responsibility but doesn't explain why 0	0 0 0
		(7) can't rate 1	
		(8) other 0	
How does this work out at your house? I mean, does everyone always or usually do his job? (Probe re: whether mother's attitude is permissive.)		How does this work out at your house?	
		(1) not applicable, e.g., children do not have specific jobs 0	CODE 1
		(2) works out; e.g., most or all usually do their job 21	UNCHANGED 22
(IF NO)		(3) sometimes works out, sometimes doesn't; e.g., mother has to intervene to get jobs done, children are slow in doing them 5	4
Why not?		(4) doesn't work out well 10	3
		(5) can't rate 0	0

INTERVIEW ITEMS----FORM I	INTERVIEW ITEMS----FORM II	CODING----FORM I	CODING----FORM II
ITEM (14) <u>Ask each child:</u> What kinds of things do you do around the house?	ITEM (14) ITEM UNCHANGED	ITEM (14) <u>What kinds of things do you do around the house?</u> <u>Index child only:</u> (1) responsibilities are age-appropriate <u>28</u> (2) mixed; some are age-appropriate, some not <u>0</u> (3) age inappropriate; too many or too high level responsibilities <u>2</u> (4) age inappropriate; too few or too immature responsibilities <u>4</u> (5) not applicable, e.g., does not have responsibilities <u>1</u> (6) can't rate <u>1</u> <u>Siblings other than index child:</u> (1) most or all siblings have age appropriate responsibilities <u>23</u> (2) mixed; some have age appropriate responsibilities, some do not <u>3</u> (3) most or all of siblings responsibilities are age inappropriate; too many or too high level responsibilites <u>4</u>	ITEM (14) CODE DELETED, FORM II CODE DELETED, FORM II

INTERVIEW ITEMS----FORM I	INTERVIEW ITEMS----FORM II	CODING----FORM I	CODING----FORM II
ITEM (14) (continued)		ITEM (14) (continued) What kinds of things do you do around the house (cont.)? Siblings other than index child (continued): (4) most or all of siblings responsibilities are age inappropriate; too few or too immature responsibilities 3 (5) not applicable 3 (6) can't rate 0 Do you always do these things or does anyone else ever do them? (Code for all siblings) (1) yes; more or less; most of the time 16 (2) mixed; sometimes unstable or uneven roles and responsibilities, sometimes not 8 (3) no, no particular routine; unstable or interchangeable roles 10 (4) not applicable; e.g., do not have responsibilities 1 (5) can't rate 1	ITEM (14) (continued) CODE 17 UNCHANGED 6 2 2 3
926 Do you always do these things or does anyone else ever do them? (Probe re: stability of roles.)			

(A-37)

INTERVIEW ITEMS----FORM I	INTERVIEW ITEMS----FORM II	CODING----FORM I	CODING----FORM II
ITEM (14) (continued) What happens if you don't feel like doing the things you are supposed to? (Probe re: mother's response, child's response.)		ITEM (14) (continued) What happens if you don't feel like doing the things you are supposed to do? (0) not applicable; e.g., children do not have responsibilities 0 (1) mother makes children do the job; means for doing so might or might not be mentioned 7 (2) job just gets done, e.g., "there's no such thing as not feeling like doing something", "just do it," "eventually job gets done" 4 (3) others do the job; "sometimes they switch places," or mother does job (sometimes this response is accompanied by mention of punishment, or mother "fussing at them") 9 (4) mother punishes (physical, denial, restriction, etc.), no mention of job getting done, or if it gets done, mother does it 6	ITEM (14) (continued) CODE 2 UNCHANGED 2 4 8 6

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(A-38)

INTERVIEW ITEMS----FORM I	INTERVIEW ITEMS----FORM II	CODING----FORM I	CODING----FORM II
		ITEM (14) (continued) What happens if you don't feel like doing the things you are supposed to do(cont.)	ITEM (14) (continued)
		(5) children argue, fight, put up fuss; no mention of job getting done 1	CODE 0
		(6) mother argues, fights, puts up fuss; no mention of job getting done 4	UNCHANGED 1
		(7) nothing happens; status quo, e.g., "room stays a mess" 2	4
		(8) can't rate; response not relevant or not clear cut 3	3
		(9) other 0	0

INTERVIEW ITEMS----FORM I	INTERVIEW ITEMS----FORM II	CODING----FORM I	CODING----FORM II
ITEM (15) Ask entire family: Who usually eats breakfast at home? (Specify family members who do, and those who do not.) (Ask about family members who don't eat at home.) Why doesn't _____ eat here? Who fixes breakfast? Do you eat together? (IF NO) Why not?	ITEM (15) ITEM UNCHANGED	ITEM (15) & (16) Rating of stability of family's eating arrangements (read all responses, items (15) and (16) before making rating): (1) stable eating arrangements: all family members have at least main meal together, may or may not have breakfast together (if not, reality circumstances prevent breakfasting together e.g., father works night shift, or children have differing work or school schedules); mother and/or siblings seem to have moderately stable roles in re: fixing meals 11 (2) stable arrangements: all family members have main meal together, but breakfast is or tends to be a haphazard affair (however this is not because of reality circumstances); roles in re: fixing meals appear to be fairly consistent 9	ITEM (15) & (16) CODE 12 UNCHANGED 7

INTERVIEW ITEMS----FORM I	INTERVIEW ITEMS----FORM II	CODING----FORM I	CODING----FORM II
ITEM (16) Ask entire family: Which family members usually eat dinner together? (Ask about family members who don't eat together.) Why doesn't _____ eat here? Who fixes dinner?	ITEM (16) ITEM UNCHANGED	ITEM (15) & (16) (continued) Rating of stability of family's eating arrangements (read all responses, items (15) and (16) before making rating) (continued): (3) stable eating arrangements, but subgroups of family fairly consistently eat together rather than all family members; breakfast may or may not be haphazard; cooking arrangements are reasonably stable 11 (4) moderately unstable or haphazard main meal arrangements 4 (5) extremely unstable or haphazard main meal arrangements 0 (6) can't rate 1	ITEM (15)& (16) (continued) 6 4 1 0
ITEM (17) Ask entire family: Do you usually have conversations during meals? (IF YES) What kinds of things do you talk about?	ITEM (17) ITEM UNCHANGED	ITEM (17) Do you usually have conversations during meals? (1) yes 25 (2) no 4 (3) sometimes 7 (4) no answer 0 (5) not applicable 0 (6) can't rate 0 (7) other 0	ITEM (17) CODE UNCHANGED 25 0 4 0 0 0 1

INTERVIEW ITEMS----FORM I	INTERVIEW ITEMS----FORM II	CODING----FORM I	CODING----FORM II
ITEM (17) (continued) (IF NO) Is there any other time that the family talks together, for example, after school, on weekends, in the evening?	ITEM (17) (continued)	ITEM (17) (continued) What kinds of things do you talk about? (1) not applicable 4 (2) check here if fights, arguments, etc. mentioned or if any indication of anti-social behavior, i.e., sibling competitiveness, bickering, disagreeableness 7 (3) all other responses 25 (4) can't rate 0 If "no" is checked under (a): Is there any other time the family talks together, for example after school, on weekends, in the evenings? (1) not applicable, "no" is not checked under part (a) 32 (2) other times specified 3 (3) other times not specified 1 (4) can't rate 0	ITEM (17) (continued) CODE 0 UNCHANGED 0 / 29 / 1 CODE 30 / 0 UNCHANGED 0 / 0

INTERVIEW ITEMS----FORM I	INTERVIEW ITEMS----FORM II	CODING----FORM I	CODING----FORM II
ITEM (18) Ask entire family: How long have you been living in this apartment?	ITEM (18) ITEM UNCHANGED	ITEM (18) How long have you been living in this apartment? (0) 6 months or less 2 (1) 7 months to 1 year 4 (2) 1-3 years 5 (3) 4-5 years 8 (4) 6-10 years 6 (5) over 10 years 11 (6) no answer 0 (7) can't rate 0 (8) not applicable 0 (9) other 0	ITEM (18) CODE 2 0 3 10 9 6 0 0 0 UNCHANGED 0 0 0 0 0 0 0 0 0
ITEM (19) Ask entire family: Where did you live right before you moved here? (Probe to determine city, state, or neighborhood of New York City.)	ITEM (19) ITEM UNCHANGED	ITEM (19) Where did you live right before you moved here? (1) mother lived with her own childhood family, i.e., her own mother and father, area may or may not be specified 5 (2) same building in Harlem 4 (3) same block in Harlem 7 (4) other area in Harlem 17 (5) area outside of Harlem 2 (6) can't rate 0 (7) other 1	ITEM (19) CODE 0 UNCHANGED 5 3 18 2 1 1

INTERVIEW ITEMS----FORM I	INTERVIEW ITEMS----FORM II	CODING----FORM I			CODING----FORM II	
ITEM (20) Ask entire family:	ITEM (20)	ITEM (20)			ITEM (20)	
How do you feel about this apartment compared to the one you lived in before you moved here? for example, would you say that you are: more satisfied, less satisfied, feel about the same way?	ITEM UNCHANGED	Degree of satisfaction:				
		(1)	more satisfied	26	CODE	13
		(2)	less satisfied	3		10
		(3)	feel the same	2	UNCHANGED	2
		(4)	no answer	0		0
		(5)	can't rate	1		4
		(6)	not applicable	4		1
		(7)	other	0		0
ITEM (21) Ask entire family:	ITEM (21)	ITEM (21)			ITEM (21)	
Would you like to move again?	ITEM PART UNCHANGED	Would you like to move again?				
		(1)	yes	29	CODE	26
		(2)	no	7		4
		(3)	don't know	0	UNCHANGED	0
		(4)	no answer	0		0
		(5)	can't rate	0		0
		(6)	not applicable	0		0
		(7)	other	0		0
(IF YES)						
Why?	ITEM PART UNCHANGED	Why?				
		(1)	not applicable; e.g., family does not want to move	7	CODE	4
Where would you like to move?	ITEM PART DELETED, FORM II	(2)	poor neighborhood conditions primarily, e.g., junkies, thefts, fear of going out, etc.	6	UNCHANGED	3
		(3)	poor housing conditions primarily (other than more space)	2		5
		(4)	more space primarily	7		8

INTERVIEW ITEMS----FORM I	INTERVIEW ITEMS----FORM II	CODING----FORM I	CODING----FORM II	
		ITEM (21) (continued) Why would you like to move again?(continued) (5) combination of any two or three 12 (6) can't rate 0 (7) other 2	ITEM (21) (continued) 7 3 0	
ITEM (22) Ask parent(s): Altogether, how many times have you moved in the past fifteen years? Where have you lived? (Look for upward physical mobility.) What were your reasons for moving?	ITEM (22) ITEM UNCHANGED	ITEM (22) Number of times family has moved: (0) none 7 (1) one 6 (2) two 13 (3) three 4 (4) four 3 (5) five 1 (6) six 0 (7) over six 1 (8) no answer / can't rate / not applicable 1 (9) other 0 Where have you lived? What were your reasons for moving? (1) no moves in past fifteen years 7	ITEM (22) CODE 5 7 UNCHANGED 11 5 2 0 0 0 0 0	(A-45)

INTERVIEW ITEMS----FORM I	INTERVIEW ITEMS----FORM II	CODING-----FORM I	CODING----FORM II
		ITEM (22) (continued) Where have you lived? What were your reasons for moving? (continued) (2) moves not based on considerations other than reality circumstances; e.g., based on building being torn down, mother and father separated, mother left own home to get married 3 (3) some or definite indications of upward mobility striving; e.g., moving for more space, better facilities (Check here if this is true for at least one of the moves 24 (4) can't rate 2	ITEM (22) (continued) CODE 3 UNCHANGED 18 4
ITEM (23) Ask entire family: How many rooms are there in this apartment not including the bathroom?	ITEM (23) ITEM UNCHANGED	ITEM (23) Number of rooms: (0) one 0 (1) two 1 (2) three 2 (3) four 10 (4) five 15 (5) six 6 (6) over six 2	ITEM (23) CODE 0 2 UNCHANGED 2 8 10 8 0

INTERVIEW ITEMS----FORM I	INTERVIEW ITEMS----FORM II	CODING----FORM I	CODING----FORM II
		ITEM (23) (continued)	ITEM (23) (continued) -
		Number of rooms (continued):	
		(7) no answer 0	0
		can't rate	
		(8) not applicable 0	0
		(9) other 0	0
ITEM (24) Ask entire family:	ITEM (24)	ITEM (24)	ITEM (24)
	ITEM UNCHANGED	Are there any members of your immediate family who are not living here right now?	
Are there any members of your immediate family who are not living here right now? (If no answer, ask: for example, any of your children?)		(1) yes 11 (2) no 25 (3) can't rate 0	CODE 12 18 UNCHANGED 0
(IF YES)			
Who?			
How is he (she) related to (name index child)?			
Where is he (she) now?			

INTERVIEW ITEMS----FORM I	INTERVIEW ITEMS----FORM II	CODING----FORM I	CODING----FORM II
ITEM (25) Ask mother if no male head of house present at interview:	ITEM (25)	ITEM (25)	ITEM (25)
Does the children's father live here?	ITEM PART UNCHANGED	Does the children's father live here? (1) yes, permanent resident 7 (2) yes, temporary resident 0 (3) no 20 (4) no (notation that father is deceased) 9 (5) no answer 0 (6) can't rate 0 (7) other 0	CODE 12 0 UNCHANGED 15 3 0 0 0
(IF NO)			
How long has it been since he lived here?	ITEM PART UNCHANGED	How long has it been since he lived here? (1) not applicable, e.g., father lives in household 15 (2) less than 1 month 0 (3) 1 month to 6 months 0 (4) 7 months to 1 year 2 (5) more than 1 year 13 (6) never lived in household 5 (7) no answer 0 (8) can't rate 1 (9) other 0	CODE 12 |0|2|3|8|4|0|1|0| UNCHANGED
ITEM PART NOT DEVELOPED, FORM I	(If father is deceased) When did he die?		

INTERVIEW ITEMS----FORM I	INTERVIEW ITEMS----FORM II	CODING----FORM I	CODING----FORM II
ITEM (25) (continued) Do the children ever see him? (If children see father) How often do they see him? When was the last time they saw him?	ITEM (25) (continued) ITEM PART UNCHANGED ITEM PART UNCHANGED ITEM PART UNCHANGED	ITEM (25) (continued) Do the children ever see him? (1) not applicable, e.g., father present or father deceased 16 (2) yes 14 (3) no 5 (4) some do, some don't (index child does) 0 (5) some do, some don't (index child doesn't) 0 (6) no answer 0 (7) can't rate 1 (8) other 0 How often do they see him? (0) not applicable, e.g., father present, or if absent, children to not see him 21 (1) daily 3 (2) 3 or more times per week 0 (3) once or twice a week 4 (4) every few weeks 2 (5) once a month 1 (6) less than once a month 3 (7) no answer 0 (8) can't rate 2 (9) other 0	ITEM (25) (continued) CODE 15 12 UNCHANGED 3 0 0 0 0 CODE 18 0 UNCHANGED 3 1 2 1 3 0 2 0

INTERVIEW ITEMS----FORM I	INTERVIEW ITEMS----FORM II	CODING----FORM I	CODING----FORM II
		ITEM (25) (continued) When was the last time they saw him? (1) not applicable, e.g., father present, or if absent, children do not see him 22 (2) less than 1 month 11 (3) 1 month to 6 months 0 (4) 7 months to 1 year ago 2 (5) more than 1 year ago 1 (6) no answer 0 (7) can't rate 0 (8) other 0	ITEM (25) (continued) CODE 18 10 UNCHANGED 2 0 0 0 0 0 0
ITEM (26) Ask head of house if biological mother of children not present: Does the children's mother live here? (If more than one mother, focus the following questions on mother of index child.) (IF NO)	ITEM (26) ITEM PART UNCHANGED	ITEM (26) Does the children's mother live here? (1) yes, permanent resident 35 (2) yes, temporary resident 0 (3) no 0 (4) no (notation that mother is deceased) 1 (5) no answer 0 (6) can't rate 0 (7) other 0	ITEM (26) CODE 29 UNCHANGED 0 1 0 0 0 0 0

INTERVIEW ITEMS----FORM I	INTERVIEW ITEMS----FORM II	CODING----FORM I	CODING----FORM II
ITEM (26) (continued)	ITEM (26) (continued)	ITEM (26) (continued)	ITEM (26) (continued)
How long has it been since she lived here?	ITEM PART UNCHANGED	How long has it been since she lived here?	
		(1) not applicable, e.g., mother lives in household 35	CODE 29
		(2) less than 1 month 0	0
		(3) 1 month to 6 months 0	UNCHANGED 0
		(4) 7 months to 1 year 0	0
		(5) more than 1 year 0	1
ITEM PART NOT	(If Mother is deceased)	(6) never lived in household 0	0
DEVELOPED, FORM I	When did she die?	(7) no answer 0	0
		(8) can't rate 1	0
		(9) other 0	0
240 Do the children ever see her?	ITEM PART UNCHANGED	Do the children ever see her?	
		(1) not applicable, e.g., mother present or mother deceased 36	CODE 29
(If children see mother)		(2) yes 0	1
		(3) no 0	UNCHANGED 0
How often do they see her?	ITEM PART UNCHANGED	(4) some do, some don't (index child does) 0	0
		(5) some do, some don't (index child doesn't) 0	0
		(6) no answer 0	0
When was the last time they saw her?	ITEM PART UNCHANGED	(7) can't rate 0	0
		(8) other 0	0

INTERVIEW ITEMS----FORM I	INTERVIEW ITEMS----FORM II	CODING----FORM I	CODING----FORM II
		ITEM (26) (continued)	ITEM (26) (continued)
		How often do they see her?	
		(0) not applicable, e.g., mother present, or if absent, children do not see her 36 0	CODE 29 0
		(1) daily 0	UNCHANGED 0
		(2) 3 or more times per week 0	
		(3) once or twice a week 0	
		(4) every few weeks 0	
		(5) once a month 0	
		(6) less than once a month 0	
		(7) no answer 0	
		(8) can't rate 0	
		(9) other 0	
		When was the last time they saw her?	
		(1) not applicable, e.g., mother present, or if absent, children do not see her 36 0	CODE 29 1
		(2) less than 1 month 0	UNCHANGED 0
		(3) 1 month to 6 months 0	0
		(4) 7 months to 1 year ago 0	0
		(5) more than 1 year ago 0	0
		(6) no answer 0	0
		(7) can't rate 0	0
		(8) other 0	0

INTERVIEW ITEMS----FORM I	INTERVIEW ITEMS----FORM II	CODING----FORM I	CODING----FORM II
ITEM (27) Ask parent(s): Has anyone in your family ever been hospitalized for anything? (IF YES) Who? For what? For how long? In which hospital? How long ago was this?	ITEM (27) ITEM UNCHANGED	ITEM (27) Has anyone in your family ever been hospitalized for anything? (1) no 4 (2) all for "usual reasons", e.g., surgery, maternity, etc. 30 (3) at least one instance of violence, e.g., fight, shotgun wound, etc. 1 (4) at least one instance of psychiatric reasons, e.g., "nervous breakdown" 1 (5) can't rate 0 (6) other 0	ITEM (27) CODE 3 UNCHANGED 27 0 0 0
ITEM (28) Ask parent(s): Have any of your children had to be absent from school for more than a few days in any one school year? (IF YES) Which children? Why was this? How long ago was this?	ITEM (28) Have any of your children had to be absent from school for more than a few days during this school year? ITEM PART UNCHANGED ITEM PART UNCHANGED ITEM PART DELETED, FORM II	ITEM (28) Was index child absent? (1) no 16 (2) yes 20 (3) can't rate 0 Reason for index child's absence: (1) not applicable, e.g., index child not absent 16 (2) absence due to death, illness and/or accident 19	ITEM (28) CODE 18 12 UNCHANGED 0 PARTS (1) - (4) 18 UNCHANGED 11

INTERVIEW ITEMS----FORM I	INTERVIEW ITEMS----FORM II	CODING----FORM I	CODING----FORM II
ITEM (28) (continued)	ITEM (28) (continued)	ITEM (28) (continued) Reason for index child's absence (continued): (3) can't rate 0 (4) other 1	ITEM (28) (continued) NOTE: ADDITION OF PART (5) (5) at least one absence due to playing hooky 1
ITEM PART NOT DEVELOPED, FORM I	How many days was he (she) absent?	Were siblings absent? (1) not applicable, e.g., siblings not absent, or no other siblings 14	CODE 16
ITEM PART NOT DEVELOPED, FORM I	Is this the same, more, or less than for previous years?	(2) all absences due to death, illness, and/or accident 19 (3) at least one absence due to playing hooky 2 (4) at least one absence due to reason other than above 1 (5) can't rate 0	UNCHANGED 13 1 0 0
ITEM (29) Ask parent(s): Where were you born? (Probe, if necessary, to determine specific city and state and whether urban, suburban, or rural area.)	ITEM (29) ITEM UNCHANGED	ITEM (29) Mother's birthplace: (0) northern or western urban or suburban (excluding New York City) 3 (1) northern or western rural 0 (2) southern urban or suburban 10	ITEM (29) CODE 1 UNCHANGED 0 17

INTERVIEW ITEMS----FORM I	INTERVIEW ITEMS----FORM II	CODING----FORM I	CODING----FORM II	
ITEM (29) (continued) (If other than New York City) About how old were you when you left there? Where did you go to school? (Probe re: stability of schooling) What is the last grade in school you completed?		ITEM (29) (continued) Mother's birthplace (cont.): 12 (3) southern rural (4) New York City (5) Caribbean (6) no answer (7) can't rate (8) not applicable (9) other Father's birthplace: (0) northern or western urban or suburban (excluding New York City) 1 (1) northern or western rural 0 (2) southern urban or suburban 4 (3) southern rural 2 (4) New York City 0 (5) Caribbean 0 (6) no answer 29 (7) can't rate 0 (8) not applicable (9) other	ITEM (29) (continued) CODE 5 UNCHANGED CODE 1 UNCHANGED 0 5 1 3 2 0 0 18 0	-

INTERVIEW ITEMS----FORM I	INTERVIEW ITEMS----FORM II	CODING----FORM I	CODING----FORM II
		ITEM (29) (continued)	ITEM (29) (continued)
		Age mother left birthplace:	
		(1) not applicable, e.g., born in New York City 9	CODE 5
		(2) infant to 5 years 3	1
		(3) 6 to 10 years 2	UNCHANGED 3
		(4) 11 to 15 years 6	3
		(5) 17 years and over 16	18
		(6) no answer 0	0
		(7) can't rate 0	0
		Age father left birthplace:	
			(0) not applicable, e.g., no father in home 18
		(1) not applicable, e.g., born in New York City 31	3
		(2) infant to 5 years 1	PARTS (1) - (7) 0
		(3) 6 to 10 years 0	0
		(4) 11 to 16 years 0	UNCHANGED 0
		(5) 17 years and over 3	9
		(6) no answer 1	NOTE: ADDITION 0
		(7) can't rate 0	OF CODE (0) 0
		Location of mother's schooling:	
		(0) northern or western urban or suburban (excluding New York City) 1	CODE 1
		(1) northern or western rural 0	UNCHANGED 0
		(2) southern urban or suburban 8	14

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INTERVIEW ITEMS----FORM I	INTERVIEW ITEMS----FORM II	CODING----FORM I		CODING----FORM II	
		ITEM (29) (continued)		ITEM (29) (continued)	
		Location of mother's schooling (continued):			
		(3) southern rural	9		4
		(4) New York City	14		6
		(5) Caribbean	0		0
		(6) mixed; but includes New York City	3		5
		(7) no answer can't rate	0		0
		(8) not applicable	0		0
		(9) other	1		0
		Location of father's schooling:			
		(0) northern or western urban or suburban (excluding New York City)	1	CODE	2
		(1) northern or western rural	0	UNCHANGED	0
		(2) southern urban or suburban	0		4
		(3) southern rural	3		1
		(4) New York City	3		3
		(5) Caribbean	0		1
		(6) mixed; but includes New York City	0		0
		(7) no answer can't rate	0		0
		(8) not applicable	29		18
		(9) other	0		1

INTERVIEW ITEMS----FORM I	INTERVIEW ITEMS----FORM II	CODING----FORM I		CODING----FORM II	
		ITEM (29) (continued)		ITEM (29) (continued)	
		Last grade mother completed:			
		(0) 0-6 years	1	CODE	1
		(1) 7-9 years	9		6
		(2) 10-11 years	14	UNCHANGED	13
		(3) 12 years (high school graduate)	12		9
		(4) 13-15 years (some college)	0		1
		(5) 16 years (college graduate)	0		0
		(6) 17 or more years (college graduate)	0		0
		(7) no answer can't rate	0		0
		(8) not applicable	0		0
		(9) other	0		0
		Last grade father completed:			
		(0) 0-6 years	1	CODE	1
		(1) 7-9 years	0		4
		(2) 10-11 years	2	UNCHANGED	3
		(3) 12 years (high school graduate)	3		4
		(4) 13-15 years (some college)	0		0
		(5) 16 years (college graduate)	0		0
		(6) 17 or more years (college graduate)	0		0
		(7) no answer can't rate	1		0
		(8) not applicable	29		18
		(9) other	0		0

INTERVIEW ITEMS----FORM I	INTERVIEW ITEMS----FORM II	CODING----FORM I	CODING----FORM II
ITEM (30) Ask father or ask mother about father if father not present but a member of the household:	ITEM (30)	ITEM (30) Is father working?	ITEM (30) -
Are you working? OR (Mrs. _____, does Mr. _____ work?)	ITEM PART UNCHANGED	(1) works full-time 7 (2) works part-time 0 (3) unemployed 0 (4) laid off or on strike 0 (5) retired 0 (6) no answer 0 (7) can't rate 0 (8) not applicable, e.g., no father in home 29 (9) other 0	CODE 12 UNCHANGED 0 0 0 0 0 0 0
(IF WORKING) What kind of work do (does) you (he) do?	ITEM PART UNCHANGED		18 0
Is there any kind of work that you (he) would rather do?	ITEM PART DELETED, FORM II		
(IF YES) Why?	ITEM PART DELETED, FORM II		
(IF NOT WORKING) What kind of work did you (he) do when you (he) were (was) last employed?	ITEM PART UNCHANGED		
When did you (he) last work?	ITEM PART DELETED, FORM II		
Is there any kind of job that you (he) would like to have?	ITEM PART DELETED, FORM II		

INTERVIEW ITEMS----FORM I	INTERVIEW ITEMS----FORM II	CODING----FORM I	CODING----FORM II
ITEM (31) Ask mother: Are you working?	ITEM (31)	ITEM (31) Is mother working? (1) works full-time 8 (2) works part-time 4 (3) unemployed 24 (4) laid off or on strike 0 (5) retired 0 (6) no answer 0 (7) can't rate 0 (8) not applicable 0 (9) other 0	ITEM (31) CODE 14 7 UNCHANGED 9 0 0 0 0 0 0
What kind of work do you do?	ITEM UNCHANGED	Nature of mother's work: (1) not applicable, e.g., mother not currently employed 24 (2) office work, e.g., bookkeeper, postal or department store clerk 4 (3) homemaker, baby sitter, para-professional 5 (4) domestic 1 (5) cleaning, not in private home 1 (6) factory work 1 (7) practical nurse 0 (8) can't rate 0 (9) other 0	CODE 9 UNCHANGED 4 12 2 2 1 0 0 0
Who takes care of your children while you work? (IF NOT WORKING) Did you ever work? (IF YES) When did you last work? What kind of work did you do?			

INTERVIEW ITEMS----FORM I	INTERVIEW ITEMS----FORM II	CODING----FORM I	CODING----FORM II
ITEM (31) (continued) Who took care of your children while you were working?	ITEM (31) (continued)	ITEM (31) (continued) Who takes care of children while mother works? (1) not applicable, e.g., mother not currently employed 24 (2) father and/or grandmother or other adult relative 4 (3) older sibling(s) or other adolescent family member 1 (4) neighbor only 2 (5) friend only (if not specified as neighbor) 0 (6) paid babysitter 1 (7) mother says care not necessary since children are in school 4 (8) can't rate 0 (9) other 0 If mother not currently working did she ever work? (1) not applicable, e.g., mother currently working 12 (2) yes 22 (3) no 2 (4) can't rate 0	ITEM (31) (continued) PARTS (1) - (9) 9 UNCHANGED 6 NOTE: ADDITION 5 2 OF CODES (0) & (X) 0 0 6 0 0 (0) mixed; combination of above 1 (X) mother says no one takes care of children 1 CODE 21 8 UNCHANGED 1 0

(A-61)

INTERVIEW ITEMS----FORM I	INTERVIEW ITEMS----FORM II	CODING----FORM I	CODING----FORM II
		ITEM (31) (continued) When did she last work? (1) not applicable, e.g., mother currently working or never worked 14 (2) 1 year or less 2 (3) over 1 year to 5 years ago 5 (4) over 5 years to 15 years 12 (5) over 15 years 3 (6) can't rate 0 What kind of work did she do? (0) not applicable, e.g., mother currently working or never worked 14 (1) office or clerical work, e.g., bookkeeper, postal or department store clerk 5 (2) homemaker, babysitter, para-professional 3 (3) domestic 2 (4) cleaning, not in private home 2 (5) waitress 1 (6) factory work 5 (7) mixed; combination of above 2 (8) can't rate 0 (9) other 2	ITEM (31) (continued) CODE 22 3 UNCHANGED 1 3 1 0 CODE 22 UNCHANGED 4 1 1 1 0 1 0 0 0

INTERVIEW ITEMS----FORM I	INTERVIEW ITEMS----FORM II	CODING----FORM I	CODING----FORM II
		ITEM (31) (continued) Who took care of children while she worked? (0) not applicable, e.g., mother currently working or never worked 14 (1) father and/or grandmother or other adult relatives 12 (2) older siblings or other adolescent family members 1 (3) neighbor only 1 (4) friend only (if not specified as neighbor) 2 (5) paid babysitter 0 (6) mother says care not necessary since children were in school 2 (7) mother had no children when last worked 2 (8) can't rate 0 (9) other 2	ITEM (31) (continued) CODE 22 UNCHANGED 6 0 0 1 0 1 0 0 0

INTERVIEW ITEMS----FORM I	INTERVIEW ITEMS----FORM II	CODING----FORM I	CODING----FORM II
ITEM (32) Ask children: Now, here's another question for you children. Do you ask your mother (parents) a lot of questions? What kind of questions do you ask her (them)? Do you think she (they) likes to be asked questions?	ITEM (32) ITEM UNCHANGED	ITEM (32) Do you ask your mother (parents) a lot of questions? Ask mother: (1) most or all children agree, yes 20 (2) most or all children agree, no 1 (3) some children yes, some no (index child yes) 6 (4) some children yes, some no (index child no) 6 (5) index sometimes (other siblings combination of yes, no, and/or sometimes) 3 (6) no answer 0 (7) can't rate 0 (8) not applicable 0 (9) other 0 Ask father: (1) most or all children agree, yes 4 (2) most or all children agree, no 0 (3) some children yes, some no (index child yes) 1 (4) some children yes, some no (index child no) 0	ITEM (32) CODE 16 UNCHANGED 4 7 2 1 0 0 0 0 CODE 7 UNCHANGED 4 0 2

(A-69)

INTERVIEW ITEMS----FORM I	INTERVIEW ITEMS----FORM II	CODING----FORM I	CODING----FORM II	
		ITEM (32) (continued) Do you ask your mother (parents) a lot of questions? (continued): Ask father (continued): (5) index, sometimes (other siblings combination of yes, no, and/or sometimes) 0 (6) no answer 2 (7) can't rate 0 (8) not applicable 29 (9) other 0 What kind of questions do you ask her (them)? (Code for index child only): (1) not applicable; e.g., index child does not ask questions, no answer for index child, etc. 13 (2) questions pertaining to playing, recreation, etc. e.g., going outside, bicycling, going to the park, going downstairs with friends, watching TV, having company or friends visit, etc. 4	ITEM (32) (continued) 0 0 0 17 0 5 4	(A-65)

INTERVIEW ITEMS----FORM I	INTERVIEW ITEMS----FORM II	CODING----FORM I	CODING----FORM II
		ITEM (32) (continued) What kind of questions do you ask her (them)? (Code for index child only) (continued) (3) questions that are information seeking in the following or related areas: school, learning, academic knowledge, homework, furture employment and jobs, word-meanings, etc. 6 (4) questions that are information seeking but more concrete, immediate than above and which tend to yield only immediately useful information, e.g., "what is for dinner?" or "what time is it?" 1 (5) questions which are information seeking but which do not fall in the above categories, e.g., they can relate to general or personal information e.g., "when are we going to move?" or, "when people get in jail, can they get bailed out?" 6	5 2 5

INTERVIEW ITEMS....FORM I	INTERVIEW ITEMS....FORM II	CODING....FORM I	CODING....FORM II
		ITEM (12) (continued) What kind of questions do you ask her (them)? (Code for index child only) (continued) (6) questions asking for personal guidance or advice (7) mixed; combination of two or more of above (8) can't rate (9) other Do you think she (they) [their] to be asked questions? Mother (1) most or all children agree, yes 16 (2) most or all children agree, no 2 (3) some children yes, some no (index child, yes) 4 (4) some children yes, some no (index child, no) 5 (5) no answer 9 (6) can't rate 8 (7) not applicable 0 (8) other 1	PARTS (1) - (9) 11 UNCHANGED 7 NOTE: ADDITION 1 OF CODES (9)-(X) 5 BELOW: (9) most or all children agree, sometimes 1

INTERVIEW ITEMS----FORM I	INTERVIEW ITEMS----FORM II	CODING----FORM I	CODING----FORM II
		ITEM (32) (continued) Do you think she (they) like(s) to be asked questions? (continued) Mother (continued)	
			(0) siblings sometimes (index child, no) 2 (X) siblings agree, sometimes (index child, no) 1
		Father (1) most or all children agree, yes 3 (2) most or all children agree, no 2 (3) some children yes, some no (index child, yes) 0 (4) some children yes, some no (index child, no) 0 (5) no answer 2 (6) can't rate 0 (7) not applicable 29 (8) other 0	PARTS (1) - (8) 4 UNCHANGED 3 NOTE: ADDITION 0 OF PARTS (9) - (X) 1 0 BELOW 3 17 0 (9) most or all children agree, sometimes 1 (0) siblings sometimes (index child, no) 1 (X) siblings agree, sometimes (index child, no) 0

(A-68)

INTERVIEW ITEMS----FORM I	INTERVIEW ITEMS----FORM II	CODING----FORM I	CODING----FORM II
ITEM (33) Ask parent(s):	ITEM (33)	ITEM (33)	ITEM (33)
Do you like your children to ask you questions?		Do you like your children to ask you questions? Mother:	
(IF YES)		(1) always or usually yes 24 (2) always or usually no 1 (3) sometimes yes, sometimes no 11 (4) no answer 0 (5) can't rate 0 (6) not applicable 0 (7) other 0	CODE 20 0 UNCHANGED 8 0 2 0 0
Why? (Probe for whether s/he is to give children information or only permission.)	ITEM UNCHANGED		
(IF NO)		Father:	
Why not?		(1) always or usually yes 3 (2) always or usually no 0 (3) sometimes yes, sometimes no 0 (4) no answer 0 (5) can't rate 4 (6) not applicable 29 (7) other 0	CODE 2 0 UNCHANGED 1 0 10 17 0
Do you usually answer your children's questions?		If "yes" to parts (a) and/or (b): Why?	
		(1) not applicable, e.g., response other than "yes" checked in parts (a) and/or (b) 9	CODE UNCHANGED 10

INTERVIEW ITEMS----FORM I	INTERVIEW ITEMS----FORM II	CODING----FORM I		CODING----FORM II	
		ITEM (33) (continued) If "yes" to parts (a) and/or (b): Why? (continued):		ITEM (33) (continued)	
		(2) check here <u>even if only one parent</u> stressed the learning and/or conceptual aspects of responding to children's questions, e.g., "I like to know what they're thinking," or "that's the only way they can learn," etc.	14		12
		(3) mother's response indicates that <u>she</u> rather than others should be asked questions, e.g., "I can tell them better than anybody else," or "who else can they ask?" or "that's what a mother is for." Learning and/or conceptual factors not implicit or explicit in response	7		3
		(4) general enjoyment of interaction with children or pride stressed e.g., "I like to talk about things with them."	1		3

INTERVIEW ITEMS----FORM I	INTERVIEW ITEMS----FORM II	CODING----FORM I	CODING----FORM II
		ITEM (33) (continued) If "yes" to parts (a) and/or (b): Why? (continued): (5) enjoyment, but interaction with children not an aspect, implicit or explicit, e.g., "I just like to talk." 2 (6) can't rate 3 (7) other 0 If "no" or "sometimes yes, sometimes no" to parts (a) and/or (b): Why not? (1) not applicable; response other than "no" or "sometimes yes, sometimes no" checked 25 (2) response suggests or indicates that parent is sometimes too busy to respond to children's questions 1 (3) response suggests or indicates that parent sometimes does not feel well enough to respond to children's questions (inverse may be stated, i.e., parent responds only when she feels physically well enough) 2	ITEM (33) (continued) PARTS (1) - (7) 22 UNCHANGED 1 2

INTERVIEW ITEMS----FORM I	INTERVIEW ITEMS----FORM II	CODING----FORM I	CODING----FORM II
		ITEM (33) (continued) If "no" or "sometimes yes, sometimes no" to parts (a) and/or (b): Why not? (cont.) (4) response suggests or indicates annoyance or irritation with children's behavior when they ask questions, e.g., "sometimes they don't know when to stop talking" or "they ask the same questions over and over again" or "they're all asking questions at the same time" 4 (5) response suggests or indicates a restrictive attitude on parents part, e.g., check here if includes statement such as "there are things they shouldn't talk about" 1 (6) can't rate 2 (7) other 1	ITEM (33) (continued) NOTE: ADDITION 3 OF PART (8) 0 1 0 (8) mixed; combination of two or more of above 1

INTERVIEW ITEMS----FORM I	INTERVIEW ITEMS----FORM II	CODING----FORM I	CODING----FORM II
		ITEM (33) (continued) Do you usually answer your children's questions? Mother: (1) always or usually yes 32 (2) always or usually no 0 (3) sometimes yes, sometimes no 4 (4) no answer 0 (5) can't rate 0 (6) not applicable 0 (7) other 0 Father: (1) always or usually yes 3 (2) always or usually no 0 (3) sometimes yes, sometimes no 0 (4) no answer 0 (5) can't rate 4 (6) not applicable 29 (7) other 0	ITEM (33) (continued) CODE 28 / 0 UNCHANGED 2 / 0 / 0 / 0 / 0 CODE 3 / 0 UNCHANGED 0 / 0 / 10 / 17 / 0
ITEM (33.5) ITEM NOT DEVELOPED, FORM I	ITEM (33.5) Ask parent(s): Do you think that there are some things that mothers (parents) should not discuss with their children? (IF YES) What sort of things should not be discussed?	ITEM (33.5)	ITEM (33.5) Does mother think there are some things that mothers (parents) should not discuss with their children? (1) no; mother (parents) says everything should be discussed 23

INTERVIEW ITEMS----FORM I	INTERVIEW ITEMS----FORM II	CODING----FORM I	CODING----FORM II
			ITEM (33.5) (continued) Does mother think there are some things that mothers (parents) should not discuss with their children? (continued): (2) yes; mother (parents) says some things should not be discussed 6 (3) can't rate 1 (4) other 0
ITEM (34) Ask entire family Do you ever talk about what has happened in school? (IF YES) What are some of the things you talk about? (IF NO) Why not?	ITEM (34) ITEM UNCHANGED	ITEM (34) Do you ever talk about what has happened in school? (1) most or all school-age children, yes 34 (2) most or all school-age children, no 1 (3) some children yes, some no, (index child yes) 1 (4) some children yes, some no, (index child no) 0 (5) some children yes, some no, (index child no answer) 0 (6) no answer 0 (7) can't rate 0 (8) not applicable 0 (9) other 0	ITEM (34) PARTS (1) - (9) 26 UNCHANGED 1 NOTE: ADDITION 1 OF PART (0) 0 0 0 0 0 0

INTERVIEW ITEMS----FORM I	INTERVIEW ITEMS----FORM II	CODING----FORM I	CODING----FORM II
		ITEM (34) (continued) Do you ever talk about what has happened in school?(cont)	ITEM (34) (continued) (0) siblings sometimes (index child, no) 2
ITEM (34.5) -ITEM NOT DEVELOPED, FORM I	ITEM (34.5) Could you tell me some of the things that (name index child) has been doing in his class in the past month? (Probe for specifics, e.g., "could you tell me about that?")	ITEM (34.5)	ITEM (34.5) Mother's knowledge of index child's school activities: (1) mother appears to be very familiar with child's school activities, e.g., gives specific examples, elaborates on child's successes, etc. 5 (2) mother appears to be somewhat familiar with child's school activities; e.g., gives few and general examples, gives general description only (e.g., "spelling," "math") 11 (3) mother appears to be unfamiliar with child's school activities; e.g., acknowledges that she does not know what the child has been doing 9 (4) can't rate 5 (5) not applicable 0 (6) other 0

INTERVIEW ITEMS----FORM I	INTERVIEW ITEMS----FORM II	CODING----FORM I	CODING----FORM II
ITEM (35) Ask children: Do you children think it bothers your mother if you talk when she's: (a) busy? (b) working around the house? (c) shopping? (d) on the bus or subway? (e) trying to relax? (f) talking with other grown-ups? (IF YES TO ANY PART) 262 How do you know that it bothers her? (Probe, what does she do or say?)	ITEM (35) ITEM UNCHANGED	ITEM (35) Do children think it bothers mother if they talk when she's: Busy? (1) yes, most or all children 26 (2) no, most or all children 2 (3) some yes, some no, (index child yes) 1 (4) some yes, some no, (index child no) 2 (5) sometimes yes, sometimes no 4 (6) no answer 1 (7) can't rate 0 (8) not applicable 0 (9) other 0 Working around the house? (1) yes, most or all children 16 (2) no, most or all children 11 (3) some yes, some no, (index child yes) 3 (4) some yes, some no, (index child no) 0 (5) sometimes yes, sometimes no 4 (6) no answer 1 (7) can't rate 1 (8) not applicable 0 (9) other 0	ITEM (35) CODE 22 0 UNCHANGED 3 1 3 0 1 0 0 CODE 10 13 UNCHANGED 4 0 1 0 2 0 0

(A-76)

INTERVIEW ITEMS----FORM I	INTERVIEW ITEMS----FORM II	CODING----FORM I	CODING----FORM II
		ITEM (35) (continued) Do children think it bothers mother if they talk when she's shopping? (1) yes, most or all children 18 (2) no, most or all children 11 (3) some yes, some no, (Index child yes) 0 (4) some yes, some no, (Index child no) 2 (5) sometimes yes, sometimes no 2 (6) no answer 1 (7) can't rate 2 (8) not applicable 10 (9) other 10 On the bus or subway? (1) yes, most or all children 4 (2) no, most or all children 20 (3) some yes, some no, (Index child yes) 2 (4) some yes, some no, (Index child no) 2 (5) sometimes yes, sometimes no 1 (6) no answer 1 (7) can't rate 1 (8) not applicable 10 (9) other 10	ITEM (35) (continued) CODE 8 18 UNCHANGED 1 0 1 0 0 1 1 2 10 PARTS (1) - (9) 4 UNCHANGED 20 1 1 NOTE: ADDITION 1 2 OF PART (0) 0 0 0 1 1 1 1 10

INTERVIEW ITEMS----FORM I	INTERVIEW ITEMS----FORM II	CODING----FORM I	CODING----FORM II
		ITEM (35) (continued) Do children think it bothers mother if they talk when she's: On the bus or subway(excpt.)?	ITEM (15) (continued)
		Trying to relax?	(0) siblings, sometimes (index child no) 1
		(1) yes, most or all children 11 (2) no, most or all children 2 (3) some yes, some no, (index child yes) 3 (4) some yes, some no, (index child no) 1 (5) sometimes yes, sometimes no 0 (6) no answer (7) can't rate (8) not applicable (9) other	CODE 21 2 UNCHANGED 1 0 0 0 0
		Talking with grandson?	
		(1) yes, most or all children 30 (2) no, most or all children 3 (3) some yes, some no, (index child yes) 1 (4) some yes, some no, (index child no) 0 (5) sometimes yes, sometimes no 0	PARTS (1) - (9) 27 1 UNCHANGED 0 1 0

INTERVIEW ITEMS----FORM I	INTERVIEW ITEMS----FORM II	CODING----FORM I	CODING----FORM II
		ITEM (35) (continued) Do children think it bothers mother if they talk when she's: Talking with grownups (cont.)? (6) no answer 0 (7) can't rate 0 (8) not applicable 0 (9) other 0 How do children know it bothers her? (1) not applicable, e.g., none of above instances bother mother 0 (2) any instance of physical punishment or threat of physical punishment 7 (3) any instance (other than above) of excessive vocal expression, e.g., yelling, screaming, hollering 4 (4) all other responses 25	ITEM (35) (continued) NOTE: ADDITION 0 0 OF PART (0) 0 0 (0) some yes, some no (index child, no answer) 1 PARTS (1) - (4) 0 UNCHANGED 1 NOTE: ADDITION OF PART (5) 3 21 (5) can't rate 5

INTERVIEW ITEMS----FORM I	INTERVIEW ITEMS----FORM II	CODING----FORM I	CODING----FORM II
ITEM (36) Ask children: Do you children read any books besides school books? (IF YES) What kind of books do you read?	ITEM (36) ITEM UNCHANGED	ITEM (36) Do you children read any books besides school books? Index child: (1) yes 30 (2) no 2 (3) can't rate 4 Siblings 8 to 12 (excluding index child): (1) all yes 18 (2) all no 2 (3) some yes, some no 0 (4) can't rate 8 (5) not applicable 8 Siblings over 12: (1) all yes 14 (2) all no 0 (3) some yes, some no 0 (4) can't rate 7 (5) not applicable 15 What kinds of books do you read? Index child: (1) not applicable, e.g., index child does not read other books 5 (2) reads comic books only 4 (3) reads comic books and other books 9	ITEM (36) CODE 28 UNCHANGED 2 0 CODE 11 UNCHANGED 3 0 7 9 CODE 13 UNCHANGED 1 0 8 8 CODE 2 UNCHANGED 4 10

(A-80)

INTERVIEW ITEMS----FORM I	INTERVIEW ITEMS----FORM II	CODING----FORM I	CODING----FORM II	
		ITEM (36) (continued) What kinds of books do you read (continued)? Index child (continued): (4) reads other books only 15 (5) can't rate 3 Siblings 8 to 12 (excluding index child): (1) not applicable, no other siblings or siblings do not read 15 (2) most or all read comic books only 4 (3) most or all read comic books and other books 1 (4) most or all read other books only 13 (5) can't rate 3 (6) other 0 Siblings over 12: (1) not applicable, e.g., no siblings over 12 or siblings do not read 20 (2) all siblings read age-appropriate material 9	ITEM (36) (continued) 12 2 CODE 11 3 UNCHANGED 4 3 9 0 CODE DELETED, FORM II	(A-81)

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INTERVIEW ITEMS----FORM I	INTERVIEW ITEMS----FORM II	CODING----FORM I	CODING----FORM II
		ITEM (36) (continued) What kinds of books do you read (continued)? Siblings over 12 (continued): (3) some read age-appropriate material, some do not 2 (4) few or none read age-appropriate material 2 (5) can't rate 3 (6) other 0	ITEM (36) (continued)
ITEM (36.5) ITEM NOT DEVELOPED, FORM I	ITEM (36.5) Ask children: Does anyone in the family ever help you with your homework? (IF YES) Who? About how often?	ITEM (36.5)	ITEM (36.5) Does anyone in your family ever help you with your homework? (0) no (all siblings are 10 and older) 2 (1) no (some siblings are under 10) 0 (2) mother only 11 (3) father only 2 (4) mother and father only 0 (5) older siblings only 3 (6) parent(s) and older siblings or other relatives 12 (7) no answer } can't rate) 0 (8) not applicable 0 (9) other 0

INTERVIEW ITEMS----FORM I	INTERVIEW ITEMS----FORM II	CODING----FORM I	CODING----FORM II
		ITEM (36.5) (continued)	ITEM (36.5) (continued) About how often? (0) not applicable 2 (1) daily 12 (2) 3 or more times per week 0 (3) once or twice a week 10 (4) every few weeks 1 (5) once a month 1 (6) less than once a month or rarely 2 (7) no answer 0 (8) can't rate 2 (9) other 0
ITEM (37) Ask entire family: 272 Does anyone in the family ever read to the children? (IF YES) Who? About how often? (Probe for example, would you say daily, three or more times a week, once or twice a week, every few weeks, once a month?	ITEM (37) ITEM UNCHANGED	ITEM (37) Does anyone in the family ever read to the family? (0) no (all siblings are 10 and older) 4 (1) no (some siblings are under 10) 5 (2) mother only 11 (3) father only 0 (4) mother and father only 0 (5) older siblings only 8 (6) parent(s) and older siblings or other relatives 8 (7) no answer } 0 can't rate } (8) not applicable 0 (9) other 0	ITEM (37) CODE 7 UNCHANGED 5 9 2 0 6 1 0 0 0

(A-83)

INTERVIEW ITEMS----FORM I	INTERVIEW ITEMS----FORM II	CODING----FORM I	CODING----FORM II
ITEM (37) (continued)		ITEM (37) (continued)	ITEM (37) (continued)
		About how often?	
		(0) not applicable 9	CODE 12
		(1) daily 4	2
		(2) 3 or more times per week 7	UNCHANGED 2
		(3) once or twice a week 10	10
		(4) every few weeks 4	2
		(5) once a month 1	1
		(6) less than once a month or rarely 1	1
		(7) no answer 0	0
		(8) can't rate 0	0
		(9) other 0	0
Does anyone ever listen to the children read?		Does anyone ever listen to the children read?	
(IF YES)		(0) no (all siblings are 10 and older) 2	CODE 1
Who?		(1) no (some siblings are under 10) 1	UNCHANGED 1
		(2) mother only 16	19
About how often?		(3) father only 0	0
		(4) mother and father only 2	1
		(5) older siblings only 4	5
		(6) parent(s) and older siblings or other relatives 11	2
		(7) no answer / can't rate 0	0
		(8) not applicable 0	0
		(9) other 0	1

INTERVIEW ITEMS----FORM I	INTERVIEW ITEMS---FORM II	CODING----FORM I	CODING----FORM II
ITEM (37) (continued)		ITEM (37) (continued)	ITEM (37) (continued)
		About how often?	
		(0) not applicable 3	CODE 2
		(1) daily 15	7
		(2) 3 or more times per week 4	UNCHANGED 2
		(3) once or twice a week 9	16
		(4) every few weeks 3	2
		(5) once a month 1	0
		(6) less than once a month or rarely 1	0
		(7) no answer 0	0
		(8) can't rate 0	1
		(9) other 0	0
Does anyone in the family ever tell stories to the children?		Does anyone in the family ever tell stories to the children?	
(IF YES)		(0) no (all children are 10 and older) 6	PARTS (0) - (9) 8
Who?		(1) no (some siblings are under 10) 14	UNCHANGED 11
About how often?		(2) mother only 5	3
		(3) father only 0	NOTE: ADDITION 1
		(4) mother and father only 0	OF CODE (X) 0
		(5) older siblings only 6	2
		(6) index child only 2	0
		(7) parents and older siblings 2	2
		(8) no answer, can't rate, not applicable 0	0
		(9) other 1	1
			(X) mixed; combination of two or more of above 2

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(M-85)

INTERVIEW ITEMS----FORM I	INTERVIEW ITEMS----FORM II	CODING----FORM I	CODING----FORM II
		ITEM (37) (continued) About how often? (0) not applicable 20 (1) daily 4 (2) 3 or more times per week 0 (3) once or twice a week 4 (4) every few weeks 2 (5) once a month 3 (6) less than once a month or rarely 1 (7) no answer 0 (8) can't rate 2	ITEM (37) (continued) CODE 19 2 UNCHANGED 2 1 2 0 1 0 3
ITEM (37.5) ITEM NOT DEVELOPED, FORM I	ITEM (37.5) Ask parent(s): What do you think is the most important thing your children should learn in school? Why?	ITEM (37.5)	ITEM (37.5) What do you think is the most important thing your children should learn in school? (1) reading (check here when "reading" is the only response) 11 (2) reading and either other school work or behavior 10 (3) academic content only 1 (4) appropriate behavior only 5 (5) mixed, e.g., academic content other than reading and behavior 1 (6) can't rate 2 (7) other 0

(A-86)

C42

INTERVIEW ITEMS----FORM I	INTERVIEW ITEMS----FORM II	CODING-----FORM I	CODING----FORM II
ITEM (38) Ask parent(s):	ITEM (38)	ITEM (38)	ITEM (38)
Do you ever get a chance to read any newspapers, magazines, or books?	ITEM PART UNCHANGED	Does mother ever get a chance to read any newspapers, magazines, or books?	
(IF YES)		(1) yes 29 (2) no 2 (3) sometimes 5 (4) no answer 0 (5) can't rate 0 (6) not applicable 0 (7) other 0	CODE 28 UNCHANGED 0 1 0 1 0 0
Could you give me some examples of any newspapers, magazines, or books that you have read lately?	ITEM PART UNCHANGED	What does she read?	
		(1) not applicable, response other than "yes" or "sometimes" to part (a) 2 (2) books stressed (even if other mentioned) 2 (3) daily newspaper only 4 (4) magazines only 1 (5) daily newspaper(s) and magazines 17 (6) daily newspaper(s), magazines, and books 3 (7) daily newspaper(s) and books 3 (8) can't rate 1 (9) other 3	PARTS (1) - (6) 1 AND (8) and (9) 1 4 UNCHANGED 0 NOTE: MODIFICATION 19 OF PART (7) 4 (7) daily newspaper(s) and books; or magazines and books 1 0 0
Do you have any books or magazines in the house right now?	ITEM PART DELETED, FORM II		

INTERVIEW ITEMS----FORM I	INTERVIEW ITEMS----FORM II	CODING----FORM I	CODING----FORM II
ITEM (38.5) ITEM NOT DEVELOPED, FORM II	ITEM (38.5) Ask parent(s): (Note question is not applicable if index is only child or if siblings are infants.) Would you say that your children are very much alike or very different from one another? (IF ALIKE) In what ways are your children alike? (IF DIFFERENT) In what ways are your children different?	ITEM (38.5)	ITEM (38.5) Would you say that your children are very much alike or very different from one another? (1) mother says children are alike 11 (2) mother says children are different 15 (3) can't rate 3 (4) not applicable, e.g., index is only child 1 (5) other 0 How are children very much alike or very different from one another? (Non-content code based upon mother's conceptual skill in answering the question.) (1) mother displays conceptual skills, i.e., is able to describe similarities or differences among children 14 (2) mother does not display conceptual skills, i.e., gives vague or irrelevant response 14 (3) can't rate 1 (4) not applicable; e.g., index is only child 1 (5) other 0

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(88-V)

INTERVIEW ITEMS----FORM I	INTERVIEW ITEMS----FORM II	CODING----FORM I	CODING----FORM II
ITEM (39) Ask children: Can you remember anything you've done you thought your mother (parents) was (were) proud of? (IF YES) What did you do? How did you know that she (they) was (were) proud of you? (IF NO) Can you think of anything that would make your mother (parents) proud of you?	ITEM (39) ITEM PART UNCHANGED ITEM PART UNCHANGED What does your mother do to let you know she's proud of you? ITEM PART DELETED, FORM II	ITEM (39) Can you remember anything you've done you thought your mother was proud of? Index child: (1) not applicable; e.g., no response from index child 6 (2) no 3 (3) yes: school or academic achievement mentioned; e.g., homework, grades, teacher praise, good test marks, etc. (Check here even if mentioned in combination with other categories.) 17 (4) yes: nonschool achievement noted; e.g., special activity at church, achievement in community club, receiving athletic trophy, etc. 3 (5) yes: helping mother; e.g., washing floors, helping with chores, etc. 4 (6) can't rate 1 (7) other 2	ITEM (39) PARTS (1) to (7) 3 4 UNCHANGED NOTE: ADDITION OF PART (8) 14 3 4 0 0 (8) other non-achievement mentioned; e.g., being in a wedding, getting to school on time 2

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(4-80)

INTERVIEW ITEMS----FORM I	INTERVIEW ITEMS----FORM II	CODING----FORM I	CODING----FORM II
		ITEM (39) (continued) Can you remember anything you've done you thought your mother was proud of? (continued) Children other than index child five years of age or older: (1) not applicable; e.g., no siblings or no siblings five years or older 3 (2) all or almost all say "no" 1 (3) all or almost all say "yes": school or academic achievement mentioned; e.g., homework, grades, teacher praise, good test marks, etc. (Check here even if mentioned in combination with other categories) 18 (4) all or almost all say "yes": nonschool achievement noted;e.g., special activity at church, achievement in community club, receiving athletic trophy, etc. 2 (5) all or almost all say "yes": helping mother; e.g., washing floors, helping with chores, etc. 2	ITEM (39) (continued) PARTS (1) to (7) 1 UNCHANGED 0 NOTE: ADDITION OF PART (8) 19 1 1

INTERVIEW ITEMS----FORM I	INTERVIEW ITEMS----FORM II	CODING----FORM I	CODING----FORM II
		ITEM (39) (continued) Can you remember anything you've done you thought your mother was proud of? (continued) Children other than index child five years of age or older (continued): (6) can't rate and/or mixed 7 (7) other 3 If "yes" above to (a) and/or (b): How did you know that she was proud of you? (1) not applicable; e.g., no "yes" responses to (a) or (b) 1 (2) physical, facial expressive aspects of mother's response noted; e.g., "smiles at us," "by the look on her face," "she seems happy," "she laughs," "her eyes light up," "cries," etc. 4 (3) physical display of emotion; e.g., hugs 0 (4) verbal response of mother is noted; e.g., "talks a lot about it," "tells us," "asks questions" 12	ITEM (39) (continued) 7 0 (8) other non-achievement mentioned; e.g., "getting married" 1 If "yes" above to (a) and/or (b): How do you usually know that she is proud of you? CODE 2 UNCHANGED NOTE: MODIFICATION OF QUESTION 5 4 5

INTERVIEW ITEMS----FORM I	INTERVIEW ITEMS----FORM II	CODING----FORM I	CODING----FORM II
		ITEM (39) (continued) If "yes" above to (a) and/or (b): How did you know that she was proud of you? (cont.) (5) mother uses concrete rewards; e.g., "buys us things," etc. 0 (6) mother attends special school or nonschool events 2 (7) mixed; combination of two or more of above 15 (8) can't rate 2 (9) other 0	ITEM (39) (continued) If "yes" above to (a) and/or (b): How do you usually know that she is proud of you? (cont.) 1 0 10 3 0
ITEM (40) Ask parent(s): When your children have done something that you approve of, what do you do? Tell me your feelings when your children make you proud of them. What do you think your children's feelings are when you're proud of them?	ITEM (40) ITEM UNCHANGED	ITEM (40) When your children have done something that you approve of, what do you do? (Code for mother only.) (1) children are given concrete rewards only, e.g., money, takes them out, etc. 7 (2) mother gives verbal reenforcement, encouragement, or praise only (may or may not include praising children to others) 13 (3) mother gives physical affection only; e.g., hugs, kisses 3	ITEM (40) PARTS (1) to (9) 3 UNCHANGED 16 3

INTERVIEW ITEMS----FORM I	INTERVIEW ITEMS----FORM II	CODING----FORM I	CODING----FORM II
		ITEM (40) (continued) When your children have done something that you approve of, what do you do? (Code for mother only.) (continued) (4) mixed; combination of (1) and (2) 6 (5) mixed; combination of (1) and (3) 3 (6) mixed; combination of (2) and (3) 1 (7) mixed; combination of (1), (2), and (3) 3 (8) can't rate 0 (9) other 0	ITEM (40) (continued) NOTE: ADDITION 3 OF PART (0) 1 2 0 1 0 (0) mother says she does nothing 1
ITEM (41) Ask children: Have you children ever done anything that you thought your mother (parents) was (were) angry about? (IF YES) What did you do?	ITEM (41) ITEM PART UNCHANGED ITEM PART UNCHANGED	ITEM (41) Have you children ever done anything that you thought your mother (parents) was (were) angry about? If YES, what did you do? (Code for index child only.) (0) no 2 (1) yes: school related behavior noted; e.g., poor grades, failure to do homework, etc. 0	ITEM (41) CODE 0 UNCHANGED 0

INTERVIEW ITEMS----FORM I	INTERVIEW ITEMS----FORM II	CODING----FORM I	CODING----FORM II
ITEM (41) (continued)	ITEM (41) (continued)	ITEM (41) (continued)	ITEM (41) (continued)
How did you know your mother (parents) was (were) angry?	How do you usually know that your mother is angry?	Have you children ever done anything that you thought your mother (parents) was (were) angry about? If YES, what did you do? (Code for index child only.) (cont.)	
How did you feel about this?	ITEM PART UNCHANGED	(2) yes: aggressive interpersonal activities, in or out of family noted; e.g., getting into fights, arguing with or picking on sibling 2	
(IF NO)			
What kinds of things might you do that would make your mother (parents) angry?	ITEM PART DELETED; FORM II	(3) yes: distinctive activity noted; e.g., breaking a radio, breaking a dish, dropping things on the floor, etc. 4	4
		(4) yes: failure to abide by mother's "rules;" e.g., "came home late," "not telling mother where I am going," "not keeping promises," etc. 8	7 / 11
		(5) yes: vaguely stated misbehavior; e.g., "when we fuss" 3	3
		(6) yes: more specific misbehavior; e.g., "throwing bricks from an abandoned building" 3	1

INTERVIEW ITEMS----FORM I	INTERVIEW ITEMS----FORM II	CODING----FORM I	CODING----FORM II
		ITEM (41) (continued) Have you children ever done anything that you thought your mother (parents) was (were) angry about? If YES, what did you do? (Code for index child only.) (cont.) (7) yes: encroachment on parent(s) possessions; e.g., "when we wear her things" 1 (8) mixed; combination of above 3 (9) response not elicited from index child 8 (X) can't rate 0 (Y) other 2 How did you know when your mother (parents) was (were) angry? (Code for all children.) (1) responses of "no" were elicited from children to original question 2 (2) she screams, yells, threatens, hollers, etc. 3 (3) beats us, hits us (Check here if at least one instance of physical punishment is noted.) 6	ITEM (41) (continued) 0 1 3 0 0 How do you usually know when your mother (parents) is (are) angry? (Code for all children.) CODE 0 UNCHANGED 8 4

INTERVIEW ITEMS----FORM I	INTERVIEW ITEMS----FORM II	CODING----FORM I	CODING----FORM II
		ITEM (41) (continued) How did you know when your mother (parents) was (were) angry? (Code for all children.) (continued) (4) tells us, talks to us, etc. (Check here if at least one instance of verbal responses is noted) 4 (5) nonphysical punishment; e.g., denial of privileges 0 (6) expressive features of mother noted; e.g., looks a certain way, gets a mean face 3 (7) mixed; combination of above 11 (8) can't rate 4 (9) other 3 How did you feel about it? (For all siblings including index child.) (1) not applicable; e.g., a response not obtained or responses were "no" to original question 4 (2) at least one (or more) of responses indicates anger 5	ITEM (41) (continued) How do you usually know when your mother (parents) is (are) angry? (Code for all children.) (continued) NOTE: MODIFICATION 7 OF QUESTION 0 2 4 5 0 CODE 2 UNCHANGED 2

INTERVIEW ITEMS----FORM I	INTERVIEW ITEMS----FORM II	CODING----FORM I	CODING----FORM II
		ITEM (41) (continued) How did you feel about it? (For all siblings including index child.) (continued)	ITEM (41) (continued)
		(3) at least one (or more) of responses indicates a sense of shame, of having done "wrong," etc. 5	3
		(4) at least one (or more) of responses indicates fear, feeling "scared" 3	1
		(5) at least one (or more) of responses indicates desire to get away from mother when she is angry 2	2
		(6) "terrible," "bad," "sad," if this is only resporse 9	15
		(7) mixed; combination of above 3	1
		(8) can't rate 4	4
		(9) other 1	0

INTERVIEW ITEMS----FORM I	INTERVIEW ITEMS----FORM II	CODING----FORM I	CODING----FORM II
ITEM (42) Ask children: What kind of punishment does (do) your mother (parents) usually use? How do you feel when your mother (parents) punishe(s) you? How do you think your mother (parents) feel(s) when she (they) has (have) to punish you?	ITEM (42) ITEM UNCHANGED	ITEM (42) What kind of punishment does your mother usually use? (1) physical punishment; e.g., hitting, spanking, etc. for younger children; denial of privileges, deprivation for older children; age-related punishment is specified 7 (2) combination of above; however, no indication punishment is age-related 16 (3) denial of privileges and/or deprivation only, e.g., staying in house, not watching T. V. 10 (4) physical punishment only 2 (5) can't rate 0 (6) other 1	ITEM (42) PARTS (1) to (6) 2 UNCHANGED 6 NOTE: ADDITION 15 OF PART (7) 3 0 1 (7) none; children say mother does not punish them 3

INTERVIEW ITEMS----FORM I	INTERVIEW ITEMS----FORM II	CODING----FORM I	CODING----FORM II
ITEM (43) Ask parent(s):	ITEM (43)	ITEM (43)	ITEM (43)
Do you tell your children why they are being punished?	ITEM PART DELETED, FORM II		
What are your feelings when you have to punish your children?	ITEM PART UNCHANGED	What are your feelings when you have to punish your children?	
How do you think your children feel when you have to punish them?	ITEM PART UNCHANGED	(1) undifferentiated expression of sorrow, sadness, or anger unaccompanied by statements in re: discipline, necessity for punishment, etc. e.g., "It hurts me more than it hurts them." 17 (2) above, e.g., sorrow, sadness, but accompanied by implication that mother is thinking about discipline, the principle involved, the nature of the punishment 9 (3) some expression, vague or otherwise that punishment is justified, or that mother is right, etc. 4	PARTS (1) to (6) 14 UNCHANGED NOTE: ADDITION 7 OF PART (7) 4

INTERVIEW ITEMS----FORM I	INTERVIEW ITEMS----FORM II	CODING----FORM I	CODING----FORM II
		ITEM (43) (continued) What are your feelings when you have to punish your children? (continued) (4) some expression of sorrow, sadness, etc. but for mother-oriented reason, e.g., mother finds keeping children in house an inconvenience 2 (5) can't rate 3 (6) other 1	ITEM (43) (continued) 0 2 0 (7) not applicable; e.g., mother does not punish children 3
682 ITEMS (44) through (48) NOTE: These items were included to provide additional behavioral data for family ratings. They were not coded on either interview form.			
ITEM (44) Ask entire family: What happens if someone in the family is upset or unhappy? Let's suppose, for example, that (name index child) went out with money to buy groceries but came home angry because someone had stolen his (her) money. Tell me what (name index child) and the other family members would do.	ITEM UNCHANGED		

INTERVIEW ITEMS----FORM I	INTERVIEW ITEMS----FORM II	CODING----FORM I	CODING----FORM II
ITEM (45) Ask entire family: Who decides what programs to watch on T.V.? Let's suppose that tonight two of you want to watch a program on Channel 2 but the rest of the family wants to watch Channel 7. What would do? (If family indicates there would be some argument over which program to watch, ask: Do you usually settle arguments this way or do you settle some arguments differently?)	ITEM UNCHANGED		
ITEM (46) Ask entire family: What is the last thing the whole family did together? For example, a trip you took, a movie you went to, or if you all went out somewhere together. When was this?	ITEM UNCHANGED		

INTERVIEW ITEMS----FORM I	INTERVIEW ITEMS----FORM II	CODING----FORM I	CODING----FORM II
ITEM (46) (continued) How did you decide where you were going to go and what you were going to do? Tell me a little about what you did when you went there.			
ITEM (47) Ask entire family: What are some of the worst things that have happened in this family? For example, have you ever been in a fire, has your apartment ever been burglarized, has something ever happened to a family member that upset you?	ITEM UNCHANGED		
ITEM (48) Ask entire family: If this family could change in any way, what are some of the ways you would like to see yourselves change?	ITEM UNCHANGED		

INTERVIEW ITEMS----FORM I	INTERVIEW ITEMS----FORM II	CODING----FORM I		CODING----FORM II	
Household Ratings: These ratings were not part of the formal interview. They were made by each of the two interviewers, independently, following the family interview.					
		Type of building in which household is located:			
		(1) rooming house	0	CODE	0
		(2) public housing	6		1
		(3) apartment house with five or more units (not public housing)	29	UNCHANGED	29
		(4) two to four family house	0		0
		(5) can't rate	1		0
		(1) renovated or new building	7	CODE	2
		(2) old building, unrenovated	28	UNCHANGED	28
		(3) can't rate	1		0
		(4) other	0		0
		Condition of building:			
		(1) excellent; e.g., in good repair, clean stairways and halls, elevator in operating order, no garbage accumulation	4	CODE	1
		(2) good; e.g., in generally good repair, generally clean appearance of stairways and halls	7	UNCHANGED	4

INTERVIEW ITEMS----FORM I	INTERVIEW ITEMS----FORM II	CODING----FORM I	CODING----FORM II
		Condition of building: (continued)	
		(3) poor; e.g., needs painting, garbage and/or odors in halls, generally unclean appearance 18	23
		(4) can't rate 7	2
		Condition of house interior:	
		(1) excellent; e.g., neat and clean appearance, orderliness, furniture and appliances in good condition 5	CODE 3
		(2) good; e.g., generally neat and/or clean, but may be some disorder 19	UNCHANGED 21
		(3) poor; e.g., disorderly, clothing and objects left to accumulate around the room, evidence of unswept dirt, grime, etc. 3	6
		(4) can't rate 9	0

Appendix B

The Revised Classroom Behavior Checklist

NUMBER _____ STARTED _____ FINISHED _____ TEACHER _____ SCHOOL _____

	Frequently	Moderately Often	Rarely	Never	No Opportunity to Observe
(1) withdraws in the face of difficulty					
(2) is inattentive; is easily distracted by things going on around him					
(3) uses materials and equipment in a rough or destructive manner					
(4) helps, sympathizes, shows consideration of others; is thoughtful; offers praise, guidance, assurance					
(5) sits quietly and attentively when task requires					
(6) brags, shows off, displays exaggerated opinion of own abilities					
(7) seeks attention, i.e., in a manner that seems designed for active notice rather than stemming from a need for help					
(8) utilizes available free time constructively					
(9) interferes with the work of others					
(10) withstands interference while engaged in individual activities, e.g., doing difficult assignment, a puzzle, painting					
(11) does not follow directions					
(12) requires close assistance or direction in order to work at a task					
(13) seeks to do things differently from others, even when own method is not effective					
(14) lets other children impose on him or boss him around					
(15) tries to figure out things for himself before calling on teacher (leader) or other children for help					
(16) does not pursue task to completion					
(17) seeks constant recognition and/or approval					
(18) speaks out of turn; interrupts others; takes other's turn, etc.					
(19) attempts to resolve difficulties that arise between himself and other children without appealing to teacher (leader)					

The foregoing behavior checklist was employed by two independent observers of all the children in the same classroom situation (at different times during at least a two-hour period at each school) on different days over a period of almost two months. The sequence of items is a random one. Below are the checklist items (with examples of actual behavior) for the Revised Checklist regrouped into categories according to what we think they are reflecting, as judged by construct considerations as well as empirical considerations during pilot and test phases of our exploration.

Independence Items--6

(4) Helps, sympathizes, shows consideration of others, is thoughtful, offers praise, guidance, assurance--e.g., helps others with work when appropriate, lends or shows materials freely.

(5) Sits quietly and attentively when task requires--e.g., remains undistracted by irrelevant activities.

(8) Utilizes available free time constructively--e.g., initiates productive activity when there is no ongoing class activity.

(10) Withstands interference while engaged in individual activities, as in doing difficult assignment, puzzle, painting, etc.--e.g., does not abandon task when interrupted.

(15) Tries to figure out things for himself before calling on teacher (leader) or other children for help--e.g., tries to overcome obstacles in the environment.

(19) Attempts to resolve difficulties that arise between himself and other children without appealing to teacher (leader)--e.g., does not initially seek adult intervention to solve difficulties between himself and peers.

Dependence Items--4

(1) Withdraws in the face of difficulty--e.g., abandons goal when presented with an obstacle.

(12) Requires close assistance or direction in order to work at a task--e.g., easily distracted; must have teacher or assistant's help to remain attentive to task.

(14) Lets other children impose on him or boss him around--e.g., does not stand up for his rights; yields his place in line, relinquishes turn at play, etc.; allows others to exploit him.

(17) Seeks constant recognition and/or approval--e.g., tries to get teacher's or assistant's attention as frequently as he can.

Pseudoindependence Items--9

(2) Is inattentive, is easily distracted by things going on around him--e.g., engages in random class-unrelated activity (wanders about, daydreams when he should be working on own); talks to visitors about irrelevant matters when he/she should be engaged in a task; daydreams; attention wanders from task at hand; is not prepared to answer when called upon in class.

(3) Uses materials and equipment in a rough or destructive manner--e.g., destroys books, crayons, games, etc.

(6) Brags, shows off, displays exaggerated opinion of own abilities.

(7) Seeks attention, i.e., in a manner that seems designed for active notice rather than stemming from a need for help--e.g., is inappropriately aggressive in seeking the attention of adults.

(9) Interferes with the work of others--e.g., imposes on other children and bosses them around; inappropriately insists on being admitted to a small peer group; destroys or takes away the sork or materials of other children.

(11) Does not follow directions--e.g., works or plays by self despite teacher's request that all children engage in group activity.

(13) Seeks to do things differently from others, even when own method is not effective--e.g., persists at tasks which are clearly impossible.

(16) Does not pursue task to completion--e.g., leaves task at hand for another or to wander about the room.

(18) Speaks out of turn; interrupts others; takes others' turn, etc.--e.g., refuses to wait his turn.